REPORT RESUMES

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A CURRICULUM FOR DROPOUT-PRONE STUDENTS--DELINQUENCY STUDY AND YOUTH DEVELOPMENT PROJECT.

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A CURRICULUM GUIDE WAS PREPARED FOR A DEMONSTRATION PROGRAM (ED 010 332) WITH HIGH SCHOOL STUDENTS WHO WERE CONSIDERED POTENTIAL DROPOUTS. SELECTION WAS ON THE BASES OF (1) INTELLIGENCE, (2) READING ACHIEVEMENT, (3) GENERAL ACHIEVEMENT, (4) SOCIOECONOMIC STATUS, AND (5) SCHOOL ADJUSTMENT. MAJOR EMPHASIS WAS ON PROVIDING THE STUDENTS WITH A SENSE OF PRIDE AND ACCOMPLISHMENT. CURRICULUM ELEMENTS INCLUDED (1) INDIVIDUALIZED READING, (2) SOCIAL UNDERSTANDING, (3) SCIENCE, AND (4) ARITHMETIC. (RS)

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A CURRICULUM

FOR

DROPOUT-PRONE

STUDENTS

DELINQUENCY STUDY AND YOUTH DEVELOPMENT PROJECT

Charles V. Matthews

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et al

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Edwardsville, Illinois

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A CURRICULUM
FOR
DROPOUT-PRONE
STUDENTS

Cooperative Research Projects No. D-041 and (5-0086)
No. HRD -555-66 (5-1166)

Charles V. Matthews
John E. Roam
Marvin H. Rull
et al

OE 4-10-002

May, 1966

The curriculum described herein was developed pursuant to contracts with the U. S. Office of Education, Department of Health, Education and Welfare.

FOREWORD

Action research has become an accepted procedure for the development and evaluation of curricular innovations. This guide is the result of such research. It represents a synthesis of experimentations and evaluations carried on over the three years of operations of the Curriculum Demonstration Program.

The work here represents the efforts of a number of people, most of whom were involved in the project. A major portion of the credit for selecting and editing goes to Mr. Marvin Rull, Curriculum Supervisor during 1965-66.

Charles V. Matthews
Principal Investigator

John E. Roam
Project Coordinator

Quincy, Ill.
May, 1966

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In preparing a guide such as this, it is impossible for one or two people to accomplish much without the help and guidance of many.

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For guidance, criticism, and inspiration far beyond any requirement, I am indebted to Richard O. Moore, Work Experience Supervisor, and to our secretaries, Mrs. Victor Wirth and Mrs. John LaTour for their understanding and cooperation.

Marvin H. Rull
Curriculum Supervisor

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1965-1966 School Year

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INTRODUCTION

This Curriculum Guide was prepared specifically for students enrolled in the Curriculum Demonstration Program. This project was jointly operated in the Quincy Public Schools, Quincy, Illinois, by Southern Illinois University and the Quincy Public Schools. It was financed by the Cooperative Research Program of the Office of Education. This project functioned during the school years 1963-64, 1964-65, and 1965-66.

The general purpose of the project was to develop in theory and practice a total educational program for a group of students referred to here as "dropout prone". The students for this program were selected according to factors isolated by Bowman and Matthews in a study done in the same community, Motivations of Youth for Leaving School.[1]

Among the specific objectives of the Curriculum Demonstration Program are the following:

1. The development of a sequential curriculum in grades seven through twelve providing concrete experiences geared to the needs of dropout-prone students.
2. The development of new materials and teaching teohniques suitable for use by other school systems.

[1] P. H. Bowman and C. V. Matthews; Motivations of Youth for Leaving School, Project No. 200, Cooperative Research Program, U. S. Office of Education, 1960.

This guide was prepared in partial fulfillment of these two specific objectives. It is a brief description of the classroom phase of the program. The classroom phase along with the work experience phase make up the curriculum of the program.

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PHILOSOPHY OF THE PROGRAM

Schools are not meeting the needs of a large percentage of the population. This is evident from the number of students who perform poorly in school or drop out altogether. The students whom we refer to as"dropout prone" become further alienated from school due to the school's failure to meet their needs. This alienation leads to social alienation and the unsuccessful experience in school is often carried on into adult life. Some of the factors contributing to this lack of adjustment to school by the dropout-prone students are low linguistic growth, cultural deprivation, social alienation, inappropriateness of educational experience to vocational expectations, and lack of school and home environment suitable to personal development.

There is little question that students in the dropout-prone category have the capacity to develop into useful and productive citizens. A program aimed at the primary years is essential. In the secondary years, there are needs for curriculum change and the environmental climate in which the student can achieve pride and the feeling of accomplishment growing out of teacher understanding and an opportunity for the student to achieve vocational preparedness.

The students in the Curriculum Demonstration Program, for whom this curriculum was prepared, were selected on the basis of five factors: (1) intelligence, (2) reading achievement, (3) general achievement, (4) socioeconomic status, and (5) adjustment to school. These students made up approximately 14 per cent of the students who fall at the bottom of the ranking of the total class group according to the average of these five factors as measured by objective instruments. The educable mentally handicapped students were not included as they were involved in another special program.

The five factors were recognized as correlating highly with one another. Therefore, the students rank low on the scale when each of these factors is considered separately.

It is probably correct to assume that no one cause existed to explain the student's need for being regarded as dropout prone. Some individual needs might have been rather well explained by one factor. More than likely, however, a combination of interrelated factors caused the development of a person's inadequacy to cope with the school as it existed. These inadequacies tend to snowball to the point where capabilities began to be covered up by an overt behavior pattern designed to mask inadequacies and to protect the individual from the results of these inadequacies. A basic or primary cause might have been one or more of such factors as low intelligence, physical disability, emotional instability, alienation because of cultural deprivation, or poor motivation. More disabling factors tend to be present by the time these students reach the secondary level, however. These factors include poor reading ability, poor self concept, alienation to school, and general failure orientations.

To say that dropout-prone students are slow learners and therefore should have a curriculum adjusted accordingly is an oversimplification. It must be admitted that these students have learned more slowly than the average. They are at the time of their selection, unable to learn as efficiently as the average--at least in connection with the academic purpose and the traditional methods to achieve that purpose.

In preparing this guide the following assumptions were made:

1. Dropout-prone students learn the same way and react to the same stimuli as other students.
2. Students' attitudes toward school and toward academic learning can be changed by:
    a. Their feeling that they are accepted for what they are.
    b. A program in which they can see value.
    c. A program in which they can be successful.
    d. A method based on the opportunity to express themselves and to react to situations which are basic to the attitudes which please them in conflict with the school and other institutions of society.

3. Dropout-prone students will accept the responsibility for forming positive goals in an environment in which their attitudes are respected.
4. Reading is one of the most necessary areas of emphasis.
    a. The content should include a large measure of orientation to the local community, the family, the school, and social agencies for which dropout-prone students tend to have attitudinal conflicts.
    b. The content should include a large measure of vocational information and preparation for seeking and holding employment.
5. Practical skills should be taught from a practical approach.

AN INDIVIDUALIZED READING PROGRAM

Objectives:

The goals of a reading program for students designated as dropout prone are essentially those of any good reading program. They might differ only in their emphasis. The following are the goals developed by the Curriculum Demonstration Program's Individualized Reading Program:

1. To convince reluctant readers that reading is enjoyable and profitable, as well as necessary.
2. To have students practice reading various types of material at their own reading interest level.
3. To bring students to accept the goal of reading as their own.
4. To help students improve their reading ability by:
    a. Increasing sight vocabulary.
    b. Improving ability to use word-attack skills and context clues.
    c. Developing independent reactions to written materials.

The reading program adopted the following approaches:

1. Teaching adapted to individuals needs.

2. Simple corrective procedures.
3. Diagnosis and remedial help for those most deficient in reading skills.

Practically all dropout-prone students tend to have reading disabilities. The approach must, therefore, differ somewhat from that of teaching reading in the ordinary classroom. Diagnosis and special remedial help must be implemented with virtually all the students. This remedial help must be provided in the classroom if there are no clinical facilities available.

Dropout-prone students have for the most part a negative reaction toward reading. They have little if any organized method of word analysis. They have no mastery of the lowest levels of reading skills and therefore have little experience in gathering implied meanings and ideas from the printed page. They do not see learning to read as their goal, but as a goal superimposed upon them by the school, an institution toward which they have feelings of indifference and hostilities. They have not been successful at reading, they do not expect to be. They have developed behavior patterns which further impede them from functioning at maximum capacity.

The problem is to select ways of teaching reading to "failure-oriented" students in a self-contained classroom. None of the now commonly used methods of teaching seems to be capable alone of solving the entire problem. The method used, therefore, must be a combination of several commonly used methods.

The Individualized Approach:

The method of teaching reading which is described here centers around individualizing reading instruction. It is not, however, the individualized method advocated by Dolch and others, in which students select all their reading materials. Selection of materials by dropout-prone students is regarded as a goal rather than a means. These students are likely to have little self-direction. They expect to be told where to start and to stop. Because they have had little or no success at reading, reading is not pleasant for them. When given complete freedom to select a book to read, the more reticent dutifully select some book and attempt superficially to read it in order to comply with what is expected of them. The more aggressive refuse to do what is expected of them and frequently reject choosing any book.

Reading classes for dropout-prone students need to be more teacher directed than individualized reading classes. This helps lead from the existing attitude of rejection of reading and lack of initiative to the eventual students' own selection of their reading material and more self-initiated reading. The teacher, then, is faced with the paradoxical situation of having to structure a teacher-directed reading class for students whose learning needs include self-direction. Lessons should be structured in such a way as to lead to a situation where each student becomes self-directed and capable of selecting his own reading materials. He should see reading as something he can do and as something that will meet his needs and be valuable to him.

The Reading Program

Range of levels of reading abilities and interests of dropout-prone students are probably comparable to those in the regular classes. The range of disabilities, however, are probably wider as are the range of attitudes toward reading. Students score at a low level of reading ability because of various disabilities or lack of skills. For this reason there are few reading lessons that must be presented to the class as a whole. Because of the prevalent lack of direction there is little value to a reading lesson that leaves each individual too much on his own. The best alternative seems to lie in working with the students in small groups. Each group consists of two to five students of approximately the same interests and reading level. Several factors should be involved in determining the structure of the groups; these include reading level, interests, and behavior patterns.

The first few weeks of the reading classes are spent in measuring reading levels, diagnosing specific difficulties, introducing materials, and determining interests. Students, meanwhile, are forming social groups and usually after a few weeks know some students with whom they would like to work and others with whom they would not like to work. Sociograms are constructed. The groups which form according to the sociograms are then compared to groups formed according to reading ability and those formed by teacher-estimated interests. Each student is put into a group with at least one of the people he chooses and an effort is made to see that he is not forced to work with someone with whom he feels he cannot work.

When there are discrepancies between student-chosen groups and reading-level groups, it seems advisable to let the student work in the group of his choice. The hazards to having a child with others more proficient than he is are obvious, particularly if he is made to feel that all in the group must do the same thing. Most students, however, choose to work with those of abilities and interests common to their own. When this is not the case the teacher must determine why, and try to place the student in the group where he can best function. No student--solely because of similar reading level--should be placed in a group either whose interests are far afield from his own or whose overt behavior makes him uncomfortable. For some activities other factors become more important than reading level. In some cases, groups can work at a particular activity profiting from the reading ability of the better readers in the group. The teacher should be aware of cases in which students may become overly dependent upon each other, and should encourage situations where such students can be drawn into other groups.

The groups, once formed, remain flexible. It is not necessary for each person to work in the same group each day. There are times when two or more groups work together. Reading abilities grow at different rates, interests change, behavior patterns change, and adjustments should be made to accommodate such changes. Sociograms are repeated periodically and the teacher frequently reevaluates to determine these changes as they occur.

If the groups are compatible, these reluctant readers are usually able to communicate with others within their own groups. They may share thoughts or read aloud within their groups where they would not do so with the teacher or with the class as a whole. Expressing themselves and feeling some success within a small group are steps toward success in larger groups. Students' desks may be arranged in table-like groups for most of the reading activities. At the beginning of each period the teacher helps each group start on the day's work. The amount of assigned work depends upon the extent to which each of the group members can assume responsibility for his own activities. The teacher direction lessens as the groups gain in reading ability and self-direction. Assignments are made at the beginning of each period and an effort is made to keep them as spontaneous as possible. To make assignments several days in advance curtails the student's involvement necessary to develop student initiative.

The teacher spends the majority of the period with one group. He should, of course, plan to spend approximately the same amount of time with each student, but this, also, must be somewhat spontaneous. Some groups require more teacher direction than others. A certain group may need the teacher for several consecutive days. The teacher avoids assigning a certain day of the week to a certain group as a permanent play. The last few minutes of the period are spent in looking over, reviewing, or answering questions about the day's work, in trying to elicit discussion or questions to lead to group planning of the work for the following day.

The number of groups in the classroom is usually four to six. The teacher, for the majority of the periods, is involved with the students in only one of the groups. Therefore, all except a few of the students are working without direct supervision and on activities that they, as disabled readers can carry on more or less independently.

The less able students need more direction than others. They can work on certain multi-level materials which are organized to be used independently. They may use phonics games and work with the basic sight words in "bingo-type" games. There are very simple materials which they can read with exercises to complete at the end. Since they can do little writing, little is expected of them. They can write a sentence or two about what they have read, but may need rather explicit directions in order to do so. If this is the limit of their ability in writing, this small amount is accepted from these students as readily as a larger amount would be from a more capable student. Written assignments should be kept simple enough so that students are expressing themselves and not concentrating on form.

Students working under more close teacher direction may work with books that are slightly above their independent reading level. This work should be checked and corrected immediately after completion. With the teacher's help, these students write experience chart type papers or groups of sentences on subjects which they are interested in. Most of the teacher-directed lessons with this group are done on an individual basis. Members of this group have little group identity and short attention span. They need as much individual help as it is possible to give them. Because of the short attention span it is best to provide more than one thing for students to do in a single period.

The activities carried on with the other groups during the reading period need to be more self-directed. These groups read stories which are easily within their reading level, both with and without teacher supervision. They also may work with well organized multi-level materials, but show less interest in games than the slower groups. They request more free reading time and make more use of books and reference materials on the library shelves. They also read articles and complete exercises in some of the readers. They discuss and read aloud within their own groups. They occasionally find and use supplementary materials on a specific subject which they encounter in their assigned reading.

It is necessary with all groups to establish some readiness before reading a story or an article. Rather than instructing students, "Read the story on page____.", the teacher should prompt discussion to stimulate interest or raise questions so as to establish in some way a reason for reading. Following silent reading of a story, the group might discuss it among themselves. Often students want to read aloud the conversation parts of a story. Much of this can be done within the group independent of the teacher direction. The questions raised by students may be superficial; the opinions expressed confused; the oral interpretation inaccurate. Nevertheless, there is value in having students voice their reactions to what they have read and especially to other members of the group. The teacher can elicit more interchange of ideas, help develop better understanding of the story read, and encourage more critical thinking during the time he is working with that particular group. But this is not the only time students are permitted to discuss and read aloud. Students are also encouraged to share and to read aloud their "free reading" book both with and without teacher supervision.

All groups from time to time have directed lessons in phonetic skills and use the dictionary and encyclopedia. All students do some writing. This may vary from just a sentence telling a specific thing to stories and reports. Occasionally, a group may want to read a story or perform a play for the entire class from a story they have read. A group may go to the central library and spend the entire period browsing and selecting outside reading with the help of the librarian who assists them in using the card catalogue and other library facilities.

For most reading activities group work and sharing of information is encouraged. The students may talk quietly among themselves as long as they do not disturb other people. They are free to move about the room to get games and materials as they need them. The situation is as relaxed as possible in a classroom setting. A concerted effort is made to help students realize responsibility for themselves. Little, if any, directions are given by the teacher once assignments have been made. When the day's work has begun each student is on his own to accomplish his assigned task. He may work with other students in his group, but is encouraged to respect others' rights to accomplish their work without being unduly disturbed.

When so many of the student's activities are carried on independent of the teacher's supervision, it is difficult for the teacher to provide instruction in the various skills when the need is immediate. For this reason the teacher needs to work with each individual as often as possible to determine which skills he needs to develop.

There are a few students who, despite teacher preparation and readiness for specific activity, remain unable to use profitably the time provided for independent activities. They are, for the most part, the same ones who do not profit from activities involving the whole class. A great deal of their time is wasted in either individualized or large group instruction. These students do receive attention periodically. The total percentage of their time that is lost is probably less in an individualized program than the time lost in a regular activity involving the whole class. It is more likely that the teacher will find the means to motivate this individual in the individualized approach.

When students are free to talk among themselves and to move about the room, there are times when the group may become so loud that it makes it difficult for others to work. Usually, the noise subsides when the students are reminded that others are being disturbed. Occasionally, a heated argument or particularly noisy discussion may have to be stopped. The teacher should be careful to interrupt the activities being carried on only when it is absolutely necessary to do so in order to enable others to work. Students must accept responsibility for their own conduct and must not be subjected to constant reprimands. If a student cannot function in a class without disturbing others, then he may have to be removed temporarily.

Though this block of time during the school day is designated reading, the other language arts are not neglected. Listening, speaking, and writing activities are correlated with all the activities in which the various groups work.

The method of instruction does not differ greatly from year to year. The objectives are the same, the students are the same type. The method is not organized on any logical arrangement of content. The procedure changes, therefore, only as the ability and interests of the students change. It is hoped in general that students in higher grades will be better readers than students in lower grades. A wide range of abilities exists on each level. The ability range tends to be higher at the higher levels. The program differs more in type of material available in the rooms than in any other way.

Materials Used:

It is obvious that to implement such a program the students must have at their disposal reading material suitable to both their interests and abilities. All are reading at levels below the average for their chronological ages; therefore, there is a problem of finding materials which meet both needs. The task of finding high interest/low reading level material is not so difficult now as it was in the past. There is a great amount of such material being published now. It must be kept in mind that the students are adolescents, with adolescent interests. But neither are the students adult. With the abundance of materials for adult non-readers in print since the establishment of the Office of Economic Opportunity, there is almost as much danger of selecting material too adult as material too juvenile. Neither is suitable for junior students.

There are also various multi-level materials now published which can be used very well in this type of program. These materials are valuable early in the year to help students get oriented to individualized work. These can be instrumental in helping the teacher determine each individual's reading level. These have the advantage of being self-teaching materials. Once the student learns to use the materials he can do so independent of teacher direction, correct his own mistakes, and chart his own progress. This is very advantageous during that time when the teacher is getting the room organized for individual or small group instructions.

Programmed materials are also very useful for individual work. A student can be placed to work on material on his own level which meets a deficiency common to him.

Various types of reference materials are necessary. These must be for various reading levels and they must serve a variety of interests.

Care is taken to prevent students from meeting the same books in different grade levels. Those series of books which cover a wide range of abilities are divided in some way so that students may meet the same series at different levels but not be the same materials. There needs to be some of the lower level reading material at the higher grade levels, as well as some higher grade level material at the lower levels.

The following list of materials by publishers is indicative of the type of materials used in the individualized reading program. In addition to these, various materials such as suitable library books, resource materials, and books selected from basic reading series are kept available.

	No. Books	Reading level	Interest level
Benefic Press			
Pioneer Series, Irene Estep	6	4	4 -7
World Adventure Series	6	2 -5	4 -9
Daw Frontier Series	4	1 -4	5 -9
Basic Concept Series	8	4 -5	4 -8
(This is interesting material for poor readers with a special interest in science.)			
What Is It Series	14	3 -5	4 -9
All the above are very appropriate for reluctant readers, especially boys at the junior high age who like a taste of adventure.			
D. C. Heath and Company			
Teen Age Tales	9	3 -6	7 -12
(Stories can be found to interest any teenager. They give excellent food for thought concerning many situations young people face in developing an outlook toward the world).			

	No. Books	Reading level	Interest level
Harper and Row			
The American Adventure Series	21	2 -6	6 -10
(These are especially interesting to junior high boys. Most are remotely related to historical places or characters.)			
Harr Wagner			
Deep Sea Adventure Series	8	2 -5	4 -12
Morgan Bay Mystery Series	8	2 -4	4 -12
Wildlife Adventure Series	4	4 -5	5 -12
Reading Motivation Series	3	4	6-12
The four series above cover a variety of interests in a way which stimulates curiousity and an interest in reading.			
Holt, Rinehard, and Winston, Inc.			
Adult Basic Education	1	3	9-Adult
Life with the Lucketts, Morris	1	3	9-Adult
The Thomases Live Here, Goss	1	3	9-Adult
Get Your Money's Worth, Toyer	1	3	9-Adult
You and the Law, Crabtree			

	No. Books	Reading level	Interest level
Impressions of the United States, Hollander	1	5	9-Adult
This series was written for adults, but does prove interesting to high school students. It is profitable economics training for lower socioeconomic students or people newly arrived into the urban setting.			
McGraw Hill			
Programmed Reading, Sullivan Associates, Cynthia Dee Buchanan and William N. Sullivan.	21		
(This is a set of 21 books programmed to give the beginning reader an orderly introduction to the sound and the letter symbols of the English language. It uses a selected 500 word vocabulary. It lends itself well to individual work for students who need to develop particular skills)			
The MacMillan Company			
The MacMillan Reading Spectrum	18		
(These are multilevel materials. The books are divided into 6 levels designed to			

	No. Books	Reading level.	Interest level
develop each of the three reading areas of word analysis, vocabulary development, and comprehension. Self administering exercises follow.)			
The Spectrum of Books	30	4	5-8
(Fifth and sixth grade levels are in preparation.)			
News For You			
(News For You -- This is a weekly newspaper written on a low reading level.)			
Reader's Digest			
Reading Skill Builders	19	1-6	3-12
Advanced Reading Skill Builders		7-8	7-Adult
Science Readers	4	3-6	7-12
Self Help Readers	2	7-8	7-12
Reader's Digest Readings	6		
(2-500 word vocabulary, 2-1000 word vocabulary, 2-2000 word vocabulary -- written for students of English as a foreign language.)			

	No. Books	Reading level	Interest level
Adult Readers	12	1 -7	7-Adult
(32 page booklets on various subjects.)			
Scholastic Magazines and Book Services			
Scope Magazine		4 -6	7 -12
(This is a weekly magazine written for			
poor readers. It covers the field of news			
and interest.)			
Science Research Associates			
Reading Laboratories			
IIa (These are kits of multilevel materials		2 -7	5 -10
IIb designed for independent study.		3 -8	5 -10
IIc Exercises develop all reading skills.)		4 -9	5 -10
IIIa		3 -11	7 -12
IIIb		5 -12	7 -12
Pilot Libraries			
IIa	72	2 -7	3 -8
IIb	72	4 -9	6 -9
IIIb	72	5 -12	8 -11
Reading for Understanding		3 -12	5 -12
(This is a kit of 300 durable cards			
designed to accommodate a variety of			
grade levels and purposes.)			

Units of Study and Grouping Plans:

The units of study, as well as the grouping plans, vary with the teachers. To operate successfully on an individualized program each teacher must bring his own creative ideas and techniques to the room with him. The chart on the following page indicates one teacher's grouping plan and week's work. The asterisk within the block indicates the group the teacher directs on each particular day. This does not mean that all of the teacher's time is taken up by that group that day. This is the group, however, which receives his primary interest. The teacher makes an attempt to have some contact with each group every day and be available for any special need the group may have of him.

Another teacher uses a different inner class grouping approach, (six groups, four in a group), in order to give more individual attention and to enable pupils in each group to discuss and help one another. The social aspect is considered. The grouping is used three days a week, Monday, Wednesday, and Friday. On Tuesday and Thursday, reading instruction is given to the entire group using the overhead projector to discuss errors in sentence structure, etc., and instruction is also given in basic English and grammar, Individual discussions are held concerning the pupil's problems in reading. The following chart shows the weekly approach in reading:

Group A 4 boys - non-readers to 2nd grade	Readers' Digest skillbuilder ++ "Men Against Whales"	*Practice Readers Write sentences	Basic Sight Vocabulary Sight cards Sight vocabulary game	SRA power builders
Group B 5 boys - 3rd to 4th reading level	SRA power builders	Readers' Digest ++++ The Husky, Hero of the Arctic	discussion and oral reading of Rogers book Then select outside reading	*Work on structural analysis- finding common syllables
Group C 5 girls - 4th 5th grade reading level	Select own outside reading	Readers' Digest +++++ "Shoes for the Children of Drancy"	*Oral reading and discussion of their outside reading books	Teen Age Tales Mystery at Moon Lake
Group D 5 girls - 3rd to 5th grade reading level	* Teen Age Tales "It Happened to Me"	SRA power builders	Readers' Digest Skillbuilder "Shoes for the Children of Drancy" +++++ Peggy +++ Widow Brown's Party	Structural analysis ditto sheet Then select outside reading
Group E 3 girls - 4th reading level	SRA power builders	Teen Age Tales "The Storm"	SRA power builders	Reader's Digest ++++ "Annie Oakley

* Teacher directed

Monday	Class Grouping
Tuesday	1. Reading Period
	2. Sentence Writing
	3. Individual work, discussing problems in reading
Wednesday	Class Grouping
	1. Reading Period
	2. Sentence Writing
	3. Individual work, discussing problems in reading
Friday	Class Grouping

The activities of the inner class groups are somewhat like the following:

Group #1: Read and discuss

Group #2: Vocabulary book

Group #3: Comprehensive book

Group #4: Tape Recorder

Group #5: Creative writing and sentence writing

Group #6: Spelling words and definitions

On the next day in which interclass grouping was scheduled each group moved up to the next activity.

During the reading and discussion each pupil in the group may choose any reading material in the room and read a story or chapter.

When all four pupils have completed this, each student reports and discusses what he has read in his own individual group. If a pupil finished his selection first, he may read another selection. Shy pupils in the room who are afraid to answer questions or to give an oral report to the whole class may loosen up and become more talkative in the small group. Social advancement of the shy, bashful pupil is probably one of the greatest accomplishments of this type of procedure. There is practice in reading, as well as speaking and listening, during this activity.

Groups#2 and #3, which work on the vocabulary book and the comprehension book, are working in programmed material. Each pupil in the group works at his own rate of speed, correcting his work as he goes. The teacher explains to the pupil each lesson that is being done. Some students do not need this instruction. At the end of each unit there is a review test to see how well pupils have done-and can do-this material.

The group which works with the tape recorder selects the same material to read aloud. Each pupil reads one paragraph, four paragraphs in all. They then play back what has been read. A person in each of the six groups is in charge of the tape recorder to play it back. Each pupil follows in his own book as the tape is playing back. They look and listen for their own individual mistakes as well as the mistakes of other pupils in the group. Pupils are able by this method to evaluate their oral reading. By reading over material that is being played on the tape recorder sight words are emphasized.

The group doing creative writing does just this. If students cannot write paragraphs, then they write sentences.

The group working on spelling words and definitions will have listed words from their previous reading which were unknown to them, or the teacher provides words which the students have misspelled. These words are written out, definitions are written, they are put into sentences in notebooks, and studied for a later test.

Group leaders are developed for these groups. Group leaders are in charge of papers which pupils in the groups have, and are responsible for recording group grades on master copies for the teacher's use. These group leaders may be switched around to give various people leadership experience, or an acknowledgedleader may be utilized in a group.

A CURRICULUM PROGRAM FOR SOCIAL UNDERSTANDING

Philosophy:

The traditional social studies program deals with the past-with change, causes of change, dates, and facts. Middle class values stress academic achievement and preparatory training for further schooling. By and large the dropout-prone student or the student with learning difficulties sees little or no value in "digging" up the past or going into profound philosophical discussions about ancient societies or what brought them about. One of the reasons this type of student has failed in school is that the traditional program has offered little or nothing to interest him or to help him solve some of the problems in his own society.

The following program takes into account a greater understanding of the student's society and what he is to contribute to it. It is a program designed to give him a more practical outlook and learning experience by involving him in activities geared to his personal needs and designed to prepare him to meet real-life problems in the future.

Methods of Teaching Social Studies:

The methods used here are not the lecture-test approach. Interests and abilities differ to the extent that it would be impossible to have every student working on the same thing at one time.

Many approaches were used to each topic in an attempt to enlist the interests of all students. With related activities much can be done to arouse interest and to motivate the student. Working individually or in small groups can be exhilarating to the student. This affords him opportunity to work at his own level of achievement and accomplish what he can.

Here the "power struggle" between the student and teacher ceases to exist. In many classes of slow learners it is said that a teacher spends up to eighty percent of his time maintaining control of his class. When children are given the opportunity to work on their own, control of a class ceases to be a problem. Even the reluctant student has a desire to learn, but this desire has been stifled by his inability to achieve and to keep up with his peers. The student's indifference in class is only a defense mechanism to cover up for what he knows the teacher will uncover in front of everyone else: his weaknesses. On an individual basis, the student loses the brand of slow learner because he is no longer forced to compete with other children. He can happily compete with himself and learn to capitalize on his strong points.

The content of the social studies program centers around the main objective of changing attitudes of the student. These attitudes for the most part are negative in that many of the students take a defeatist approach toward school work and their relationship with other people. A central theme is kept in each grade level. However, the approach is generally aimed at improving the attitudes of the student as he functions in everyday life.

The main purpose of this social studies program is the same as that of most programs: to develop informed, responsible, and effective citizens. This is usually accomplished by fulfilling the following objectives:

1. To orient children to the society in which they live.
2. To orient children to their community.
3. To encourage the use and evaluation of sources of information.
4. To develop the insight and background of students.
5. To cause students to be aware of how their government operates at the local, state, and federal levels.
6. To cause students to appreciate their cultural heritage.

This program for dropout-prone students does not propose to ignore the foregoing objectives. In accomplishing these, however, a more concentrated effort is made to meet the following(regarded as more specific) needs for this group of students:

1. To make children aware of their own personal and social problems.
2. To help children learn to adjust to their problems.
3. To help children learn the meaning of the family unit and its importance.

4. To develop attitudes that are necessary to good human relations in the home, the community, and the world.
5. To develop respect for the individual while demonstrating that cooperative participation in group activities is essential.

The area of communications is one in which dropout students are found to be lacking. It has been found necessary to concentrate on reading for the most part in the time block assigned to communications. For these reasons the following objectives are concentrated upon in the social studies program:

1. To improve students' study skills, especially those of reading, inquiring, observing, and listening.
2. To improve the communication skills of speaking and writing.
3. To develop the skills of functioning in a group setting.

Seventh Grade Social Studies

Objectives:

1. To have students learn map skills.
2. To create a greater awareness of the students' immediate surroundings.
3. To have students understand and appreciate the growth and and development of their community.
4. To have students understand the importance of the contribution of community organizations and enterprises.
5. To create an understanding of the citizen's obligation to the community.

CONTENT	ACTIVITIES
I. Why people settled in Quincy, and why location on the river was desirable. A. Transportation B. Water C. Food	Make trip across river to see how city is located high and on the river bank. (This can be any city, for there are geographic advantages and reasons for being settled.)
II. What people did to make a living when they settled, and how this affected the community in early days. A. Hunting B. Trapping C. Fishing D. Farming	List and discuss kinds of animals that abounded in area during early days. Individual or small groups read aloud to classes. Write stories describing life of pioneer living off the land. Visit museums and libaries to see early equipment. Discuss barter system used widely at that time and play role of traders.
III. Natural Resources A. Kinds B. Local Natural Resources 1. How these serve Quincy 2. Classification	Visit or write some processing plants getting samples of natural resources.

CONTENT	ACTIVITIES
IV. Ways to make a living in our community	
A. Trade	Explain each and give examples.
B. Transportation	Prepare lists on what type of occupations parents pursue and put these into groups.
C. Manufacturing	
D. Special Services	
E. Possible new ways to make a living as world and community changes	
V. Manufacturing in Quincy	Show map of city.
A. Companies	Divide into small groups working on various phases.
1. Industrial section	
2. Residential section	
B. Kinds of jobs in these companies	Interview people in these jobs.
1. Management	Bring parents, resource people into classroom.
2. Supervisory	
3. Laborers	Discuss employment and unemployment and reasons for the latter.
4. Office work	
C. Natural resources	From previous units (Resources).
D. Products of manufacturers	Write letters to companies discussed asking for information.
1. How we use these products	

CONTENT

2. Other places they are used.

VI. Transportation
  A. Methods of transportation
    1. Past
    2. Present
  B. Moving about in our city
    1. Taxis
    2. Buses
  C. Traveling to other cities
    1. Highways
      a. Buses
      b. Automobiles
    2. Air Travel
    3. Railroads

ACTIVITIES

Display pamphlets and material received.

Have small groups try to name as many of the products they, their family, or the school uses.

Make bulletin board to correspond with the map showing places and materials received earlier.

Discuss by mentioning current TV Shows, such as "Lost in Space" or the "Jetsons" or others depicting pioneer days.

Have students compose stories about themselves--how they might be living 50-100 years from now.

Encourage group work in making up these stories, writing and rewriting.

Get plane and train time tables, work problems on travel time, also rates for different types of freight. Show films.

CONTENT	ACTIVITIES
D. Transportation in industry 1. Barges for river traffic 2. Trucks 3. Air freight 4. Rail transportation	
E. Transportation in other lands 1. Dog sleds 2. Camels 3. Subways, elevated, other unusual methods	Use standard text in this area, with some of the pictures to create interest and move into discussions. Using map of city and information from cab and bus companies, draw zones on map and use bus schedules.
VII. Trade A. Businesses in city 1. Location 2. Products involved 3. a. How these are used b. Where they are shipped.	Show film on trading in a foreign country. Locate on maps. Encourage role playing - with children "living" in a different country. Write stories. Demonstrate barter system.

CONTENT	ACTIVITIES
B. Importing and exporting products 1. How we get products from outside 2. How we ship ours	Show how necessity of trading came about due to interdependence. Show difference between barter and trade.
C. Wholesale and retail trade 1. Apples 2. Peaches	Use bulletin board display on trade from previous unit. Trace original product from foreign country to local community.
D. Jobs to be had through trading 1. Sales 2. Labor 3. Transportation	
4. Advertising paid by consumer	Small groups can compose own advertisements for products and trade. Newspaper, News For You, can be brought in at opportune time as an adjunct.
VIII. Special Services	
A. Doctors B. Police department C. Lawyers	Use telephone directories to determine comparative numbers in community.

CONTENT

D. Health department

E. Government workers

F. Fire department

G. Welfare agencies

ACTIVITIES

Write letters requesting information.

Play roles.

Make field trip to police department, health department, etc.

Show films.

Materials used

Telephone directory

Maps

Films

A Standard Social Studies text

Magazines

World Book Encyclopedia

News For You

Eighth Grade Social Studies

"The Illinois Community"

Objectives

1. To extend the student's experiences beyond his immediate environment.
2. To help the student realize and understand the interdependence of people.
3. To help the student learn the need for and develop the ability to work with others.
4. To provide for growth in vocabulary.
5. To help the student express himself better.
6. To help the student understand the characteristics and traits, inherited and acquired, and how these can be used to best advantage.

CONTENT	ACTIVITIES
I. Maps as pictures--their usage and understanding	
A. What they tell us	Use principal learning material, SRA Map and Globe Skills.
B. Legends (Keys)	
C. Recreational (Vacationland)	

CONTENT

II. Illinois yesterday

- A. Illinois geography
    - 1. Location and importance to Nation
        - a. Rivers
        - b. Lakes
    - 2. Plains and hills
        - a. Size
        - b. Plain area
        - c. Plateau area
        - d. River valleys
    - 3. Climate
        - a. Continental climate
        - b. Weather and wind
        - c. Rain and snowfall
        - d. Growing season
            - (1) northern
            - (2) central
            - (3) southern
    - 4. Natural resources
        - a. Fertile soil
        - b. Timber lands

ACTIVITIES

Have students as a class project make a plaster relief of Illinois.

Have students list the different states the rivers of Illinois flow into.

Discuss the St. Lawrence Seaway. Show movie.

Discuss the importance of rivers to man, (e.g., Nile)

Discuss effect of climate on agriculture, different crops in different areas.

Show movie on weather.

Make imaginary "trips" in the state camp grounds, museums, fishing spots, etc.

Show movie about the different resources in Illinois.

CONTENT

- c. Coal, oil, limestone
- d. Water power

B. Illinois History

1. Explorers
    - a. French traders
    - b. Marquette and Joliet
    - c. LaSalle and Tonti
    - d. Pike
2. From French to British to A American
    - a. French and Indian War
    - b. British control
    - cc. American Revolution
    - d. George Rodgers Clark
3. Northwest Ordinance and statehood
    - a. As the N. W. Territory
    - b. Township divisions
    - c. As part of Indiana Territory
    - d. Territory of Illinois
    - e. N. Edwards

ACTIVITIES

Take a trip to the limestone pits.

Go to the Keokuk Dam.

Assign students topics to research dealing with early history.

Do library work.

Play roles (i.e., Marquette.)

Show movies available depicting this era of state's history.

The class can look at the U.S. Constitution to see what was required of a Territory.

Discuss map of Adams County showing township divisions.

Assign life of N. Edwards for a committee report.

CONTENT	ACTIVITIES
4. Constitution of Illinois	Examine the structure of a constitution and have the class draw one up for themselves.
a. Articles and sections	
b. Preamble	
c. Articles (specific)	
d. Sections (specific)	Examine family background of the students. (Their descendents weren't born here.)
5. Our state before the Civil War	
a. Immigration	
b. Railroad construction	Trace progress of the C.B.Q.
c. Mormons	Take a trip to Nauvoo, Keokuk Dam.
(1) Nauvoo	
(2) Joseph Smith	Show a film of Salt Lake City and the temple.
(3) Salt Lake City	
d. Illinois Michigan canal	
e. Stephen A. Douglas	Assign the life of Stephen A. Douglas for a committee report.
f. Lincoln	
g. Lincoln-Douglas debate	
h. Illinois Central R.R.	Take trip to New Salem and Springfield.
III. Illinois since the Civil War	
A. Chicago	
1. Rail center	

CONTENT

2. Meat packing
3. Convention center
4. Educational center

B. Springfield

C. Other cities in Illinois
    1. Population
    2. Industry
    3. Recreation
    4. Miscellaneous

ACTIVITIES

Use films.

Have students research units report.

Make a list of cities in Illinois with a population of 25,000 or more. Have students write Chambers of Commerce for information (standard brochure.)

Have students report on the cities they contacted.

Materials used:

Quincy Junior High School Student Handbook

Turner Livingston Series "The Person You Are"

News For You, newspaper

State maps

World Book Encyclopedia

A History of Illinois

Ninth Grade Social Studies

Objectives.

1. To develop map reading skills.
2. To develop an awareness of potential occupations for adults.
3. To learn to evaluate and use sources of information.
4. To learn to communicate effectively, both orally and in writing.
5. To develop an understanding of the changes in our government and the causes of these changes.

CONTENT	ACTIVITIES
I. Your Country and Mine A. Inhabitants	Give introduction to develop interest.
B. Type of government and its advantages II. Your People and Mine A. Why we inhabit this country B. How this happened	Play roles. Have current events round table or panel presentation of views about governments, the world and their problems.
III. How our nation developed	Contact resource people.
IV. Employment	Show films.
A. Kinds of employment, requirements. 1. Education 2. Experience	Practice filling out various applications.

CONTENT	ACTIVITIES
B. Proper approaches for interviews	
C. Job applications	Resource people--field trips to various businesses and factories.
D. Finding the job that will be satisfying to oneself	

Tenth Grade Social Studies

Objectives

1. To understand and appreciate the idea of democracy and the democratic way of life.
2. To understand the responsibilities of being an active contributing member of society.
3. To learn self discipline; to appreciate and respect the rights of others.
4. To understand the geography of the world, and to locate countries and distances.

CONTENT	ACTIVITIES
I. Maps	
A. General review of maps	Use overhead projector.
1. Directions	Have individual desk maps.
2. Continents	Encourage small group work on projects.
3. Oceans (major)	
4. Countries	

CONTENT

- B. Location of U. S. and other places
- II. Ancient World and Middle Ages
  - A. Geography changes in the Earth
    - 1. Weather
    - 2. Man-made changes
    - 3. Volcanoes
    - 4. Erosion (wind-water)
  - B. Determining factors in selection of places to live and why people settled where they did
    - 1. Natural protection
    - 2. Availability of water
    - 3. Climate
    - 4. Food resources
  - C. Necessity of cooperation of early man and modern man today--interdependence
    - 1. Trade
    - 2. Specialization

ACTIVITIES

Use How and Why Wonder Book, The New Animal.

Listen and discuss Standard world history textbook.

Show films and discuss.

Read daily newspapers.

Watch TV specials.

Use National Geographic Magazine, Scope Magazines.

Have work sheets.

Discuss people different in physical makeup due to adaptation to climate in which they live (e.g., Peruvian Indians in Andes Mountains.)

Discuss interesting features of the world--midnight sun, etc.

Show films.

Use open discussions throughout the year to give students opportunity to express ideas concerning lessons on any items on which they wish to comment.

CONTENT

III. Ancient civilizations
    A. Effect old civilizations had on our modern world
        1. Egypt
            a. Culture
            b. Governments
        2. Other civilizations
    B. Comparison of national products of ancient and new times
    C. Population differences
        1. Life span
        2. Health
    D. Adaptability of man to changing world
        1. Food supplies
        2. Temperature
    D. Ancient world religions
        1. Buddhism
        2. Mohammedism
        3. Hinduism

ACTIVITIES

Construct model homes and cities fo show features of types of housing used then--weapons, types of clothing.

Discuss leisure time activities.

Examine vehicles of transportation--horses, carriages.

Describe animals.

Show film on health.

Show how some places in the world have much shorter life spans due to diet and sanitation.

Take field trip to museum showing early man and how he lived.

Discuss question, Can we control nature?

Show modern adaptation of man to climate (space travel.)

Have group study sessions in which students work together with people of own choosing, sociograms can be used here.

CONTENT

- F. Communication
- G. Greece
  - 1. Beginning of democracy
  - 2. Literature--myths and folktales
  - 3. Compare Athens' democracy and Sparta's dictatorship
- H. Reasons for Rome's growth
  - 1. Location
  - 2. Climate
  - 3. Size
- I. Caesar
- J. Rise of Christian religion in Rome
- IV. Middle Ages
  - A. Feudalism
  - B. Effect of Crusade on Europe
- V. Renaissance
  - A. Michelangelo
  - B. Other great artists
  - C. Education

ACTIVITIES

Magazines can be used such as *National Geographic* or other such materials.

Play roles of citizens in dictatorship and in democracy.

Use book *Myths and Folktales*--Globe--read some of these to class to stimulate interest.

Use newspaper articles on present-day Rome.

Report on some of the oldest buildings--in and out of Rome.

Translate records and copies of Julius Caesar in everyday language.

Use bulletin board displays of supplementary materials.

Urge students to view TV specials on various topics throughout year, such as the special on Michalangelo and the Renaissance.

CONTENT	ACTIVITIES
D. Invention of printing	
VI. Modern Times	Report on and discuss early adventurers.
A. Discovery of New World	
B. First trip around world	Trace voages of early travels.
C. Sailing around African continent	Have class try to figure shorter routes (possibility of new canals, etc.)
D. Influence of trade on culture	Discuss how the above could effect trade and what influence this could have on nations.
VII. Knowing your world today	
A. Countries	This can be individual or small group project. Write to various embassies to get information.
1. Name and location	
a. Continent	
b. Border countries	
c. Rivers	
d. Mountains	
2. Size and population	
3. Climate	
4. Type of country	Attempt to get some of the money, and compare value to American dollar and what it would buy.
5. Economics	
a. Type of money	
b. National income	

CONTENT

  - c. Industries
- 6. Social structure
  - a. Religion, major, others
  - b. Languages
  - c. Culture
- 7. Family
  - a. The typical home
  - b. Diet
- 8. Laws and how they differ from ours
- 9. Schools
  - a. Length of schooling
  - b. People who attend
- 10. Typical life of teenager
- 11. Customs

ACTIVITIES

Construct model of types of homes.

Get some of the foods that one eats in these countries and sample

Set up mock government of country and attempt to do things under the laws that we are allowed here.

Play role of typical students in classrooms in other countries.

Show examples of clothing worn in these countries (make or obtain.)

Eleventh Grade Social Studies

Objectives

1. To arouse a sense of willingness to share in the community's activities.
2. To kindle a sense of responsibility and patriotism in the minds and hearts of pupils.
3. To help the student develop a better understanding of the heritage we have and the part his ancestors played in making the country great.
4. To imbue students with the idea that each American citizen is important.

CONTENT

I. **Colonial** times to independence
  - A. Backgrounds and homelands of first colonists
    1. Reasons for coming
    2. Methods of travel
    3. Who came
  - B. Discoveries in the New World
    1. Value to other countries
    2. Opportunities
  - C. Reasons for colonizing
    1. English

ACTIVITIES

Start with discussion of students' nationality, and keep tally on board.

Assign students to explore their ancestry.

Use maps to locate homelands.

Compare travel today with travel then.

Discuss nearby river and early history of community.

2

CONTENT

- 2. French
- 3. Spainish, Dutch
- 4. Others

D. The English Settlements

- 1. Where
- 2. Kind
- 3. Purpose

E. Settlements become Colonies

- 1. Kinds of governments
- 2. Rights therein

F. French & Indian War

- 1. Loss of territory
- 2. New feeling - the colonies
- 3. Attitude of the British towards colonies and taxes

G. Comparison of life in the Colonies to today's way of life

- 1. Trade
- 2. Business
- 3. Religion

H. Disputes between England and Colonial America

ACTIVITIES

Report or list why students would or would not want to leave the U.S. (Interest here can be religion, land, escape, etc.)

Compare voyages in early days to astronauts' voages of today.

Also correlate the following:

reading throughout series,
geography through study of maps,
civics,
economics,
spelling,
writing,
speech through oral reports.

Use Scope magazine.

CONTENT	ACTIVITIES
1. Taxes, rebellion and acts	Take field trip to library.
2. Sons of Liberty	
I. Rebellion and its Leaders	
J. From Boston Massacre to Lexington and Concord	
1. Causes	
2. Heroes	
3. The victor	
K. The Ideas of the American Revolution	
1. Inalienable rights	
2. Government for the people	
L. American Revolution and Declaration of Independence	Take field trip to museums.
1. Why nations helped colonies	
2. Heroes of the war	
3. Purpose of Declaration of Independence	
M. Results of War and the Problems of a new nation--1783-1789	
N. The Constitutional Convention	

CONTENT

II. The Constitution

- A. Ideas behind it
- B. Legislative branch of government and what Congress may do
- C. Legislative branch
- D. Judicial branch
- E. How Congress is chosen and how it operates
- F. How the President is chosen and his powers
- G. The Federal Court system
- H. Separation of powers
- I. State government and their powers
- J. The amendments to the Constitution
- K. The living Constitution

ACTIVITIES

List rights students enjoy in this country. When do they get these rights?

Present special booklet on Constitution--browse through it and discuss.

Propose project to class such as a new section of Interstate Highway.

Hold class elections.

Divide class into two parts: House of Representative and Senate.

Have Senate draw up a bill charting a national highway across state.

Study map for direct route.

Encourage all steps necessary in planning highway--number of miles, interchanges, bridges, etc.

CONTENT	ACTIVITIES
	Contact men in community to get information as to cost of concrete, right-of-ways, cost of other and all construction.
	House draws up a bill to get needed revenue--students interview people in community and take a poll to see how to get increased taxes(gas tax, etc.)
	Take roll calls with teacher acting as president to see that all necessary steps are taken.
	President will veto bill to show what happens.
	Correlation with different branches of government.
	Letters written to congressmen.
	Reports on some of the letters.
	Take field trip to State Capitol.
III. The growing nation	
A. Problems of Independence	Have unit during winter to bring in Valley Forge.
B. New organization	

CONTENT	ACTIVITIES
C. Aid needed from other sources	Study map.
D. First president	Show films pertaining to new independence.
E. Heroes and statesmen of era	
IV. Changes crises in American Life -- 1800-1861.	
A. Economic, social, political changes and effects of each on society.	Discuss Negroes' coming to country, and their part in the economy of country.
B. How our present lives have benefitted by reforms.	List references and let students compile two descriptions of the working man then and now.
C. American literature and culture developed for the first time	Study map--make or draw trails going west on map and discuss why they started where they did and went where they did.
D. Problems of slavery and efforts to solve them	
1. Northern view	
2. Southern view	Write diary describing hardships of pioneers.
E. Texas and Mexican War	
F. Compromise of 1850, the Kansas-Nebraska crisis	Use current events throughout to change pace and also compare today with earlier life.
G. Slavery as national issue--Dred Scott case	
H. Formation of Republican Party	

CONTENT

- I. South moves to secede
- J. The Civil War

V. Changing America since 1865

- A. Industrial Revolution
- B. The influence of the west
- C. Government regulations
- D. Problems of Labor Unions
- E. Government and Labor
- F. Farm problems after 1865
- G. Government and agriculture under the New Deal
- H. Current farm problems

ACTIVITIES

Have considerable map study showing dates of states joining the Union.

Show individual maps with some different phases of geographic picture of the country.

Have reports on different states, their products and some of the famous people involved in shaping the new America.

Take imaginary trips through Illinois and America.

Have students keep own mileage, lodging, food, places to visit, etc.

Create "unions" in class to show how they work.

Show films on National parks and vacationlands of the U.S.

Use Scope magazine to keep up with some of the current happenings and problems.

CONTENT	ACTIVITIES
	Materials Used: American History Study Lessons, by Jack Abramowitz. Scope Magazine Daily Newspapers Daily Advertisements

Twelfth Grade American Problems

The following areas of interest form the curriculum for the twelfth grade students of the Curriculum Demonstration Project in American Problems.

Unit I. The World of People

Sec. 1. Self understanding

2. Family life - getting along with others

3. Dating and marriage

4. One's own family

5. Consumer education

Unit II. The World of Work

Sec. 1. Choosing a vocation

2. Preparing for work

3. Finding a job

4. Organized labor

CONTENT	ACTIVITIES
Unit I. The World of People	
Sec. 1 - Self Understanding **Objective:** To reach a better understanding of society through a better understanding of oneself.	Discuss why self understanding is necessary to understand others.
A. Emotional development 1. As a child dependent	Use any book on bringing up children to spark discussion.
2. As an adolescent - some independence	Use bulletin board showing stages of growth.
3. As an adult - maturity	
B. Personality - as the sum total of the person	
1. Drives a. Biological (1) Food (2) Water	Teacher may lead discussion, using history, to show how these drives have shaped the history of man, wars, etc.
(3) Rest b. Social (1) Self respect	Let students determine just what the biological and social drives of man are.
(2) Security (3) Approval	Have students organize, perform, and evaluate their work considering group goals.

CONTENT

2. Emotions -
    - a. Major emotions - we have from birth
    - b. Fear
    - c. Anger
    - d. Pleasure
    - e. Grief
    - f. Love
3. Habits as acquired patterns of behavior
    - a. Good habits
    - b. Bad habits
4. Attitudes as responses to something in a particular way.
    - a. Good attitudes
    - b. Bad attitudes (e.g., prejudice, intolerance)
5. Character as inner qualities which personality reflects
    - a. Good qualities
    - b. Character and behavior

ACTIVITIES

Discuss how stress or strain can bring on emotional problems.

Have students list emotions which can affect a person for the better or worse.

Lead students to "define" emotions.

Have students discuss the traits which some people have that may cause other people to avoid them.

Discuss how one acquires habits.

Discuss good and bad habits.

Discuss environment and attitudes.

Discuss the terms "like" and "dislike".

Discuss the subject of tolerance and the need for it in our society.

Use Scope Magazine.

CONTENT	ACTIVITIES
	Discuss whether a pleasing personality is more important than physical beauty.
	Play roles of people with strongly felt attitudes (good and bad.)
Sec. II. Family Life - Getting Along With Others	
Objective: To examine the purpose of the family and the need for cooperation within.	Compare people to nations - in relation to cooperation (bring in population explosion.)
A. Function of the family 1. Biological (home for children) 2. Economic (interdependence of members for needs)	Have students come up with functions or purposes of family life.
3. Psychological (love and companionship)	Have students write how each member of their family fits the functions.
B. Evolution of family in America 1. Early American family 2. Industrial Revolution	Show movies on family life today and in the recent past (discuss differences between families.)
3. World Wars I and II 4. Today's family and its problems	Describe from history. Take a good short story with an early American setting.

CONTENT	ACTIVITIES
a. Divorce b. Juvenile delinquency	Discuss how family life is affected by war.
5. A Democratic family a. Respect b. Love c. Knowledge	Take a current story or novel about the family and compare it with one of 100 years ago. Have students decide if such a family situation is practical.
Sec. III. Dating and Marriage **Objective:** **To apply the sections preceding to themselves and their future in light of dating and marriage.**	
A. Friends **1. Friendship within the family.** a. Relations with brothers and sisters b. Attitudes c. Habits of behavior	Demonstrate and have the pupils practice introducing people. Have students discuss what they look for in friends.
2. Friendship on a social basis a. Different family members b. Common ground for the relationship (1) School	Have the girls describe the type of young men they admire and respect; the boys, the type of girls they admire and respect. Discuss how a pleasant person-

CONTENT

(2) Neighborhood
(3) Church

B. Dating a prospective mate
  1. Keeping company
    a. Respect
    b. Affection (platonic)
    c. Attraction (physical)
  2. "Going steady"
  3. Engagement - the final trial period
    a. Parents' approval
    b. Friends' approval
    c. Important questions to answer
      (1) Background
      (2) Economics
      (3) True love versus Puppy love

C. Marriage
  1. Building a happy marriage

ACTIVITIES

ality can help gain acceptance, friends and opportunity.

Discuss importance of being proud of the person one dates.

Have the fellows list the things they do not appreciate in girls they date.

Have the girls do the same.

(Discussions of sex and going steady will come up - these are good, but keep them under control.)

Obligations to one's family.

Have students determine why such things would be of importance. See causes of divorce.

Have students discuss parents attitude. How do such attitudes influence children?

Have students list and discuss

- a. Maturity
- b. Sincere affection
- c. Common interests
- d. Common goals and values
- e. Attitudes

2. Other considerations
    - a. Inlaws
    - b. Money
    - c. Children
    - d. Nationality
    - e. Politics
    - f. Career desires

Sec. IV. One's own family

Objective: To develop now proper attitudes that will carry over into students' present and future family life.

A. Problems of a family

1. Considerations
    - a. Children
        - (1) How many
        - (2) When

the responsibilities of marriage, and also list things that they expect will be different in their lives after they are married.

Have students develop a list of other considerations.

Use a check list and have students discuss the things they expect to have (1) at marriage, (2) 3 years later, (3) 5 years later.

Discuss results.

Review preceding units. Keep them in mind when considering the following:

Discuss being a first child, middle child, last child, and only child. Students who are will provide help.

Discuss average size of family and ideal family size; also, problems of having children too

CONTENT

- b. Wife working
  - (1) Before children
  - (2) After children
- c. Money management
- d. Inlaw relationship
- e. Making a home
  - (1) Renting
  - (2) Buying

ACTIVITIES

early or too late in life.

Consider need for wife working, versus need for her at home with children.

Discuss budget and minimum income needed. How much is needed to raise or start a family?

Use Scope Magazine - timely topics fit in.

Show FHA movies concerning owning or renting.

Supplementary materials of value to teacher in preparation of teacher prepared materials:

Bernhardt, Karl S., Practical Psychology, McGraw Hill.

Neugarten, Bernice L., Toward Adult Living, National Forum, Inc., Chicago.

CONTENT

Unit II, The world of work

Sec. I. Choosing a vocation

Objective: To provide an opportunity for the student to face facts. The student can look at himself, his possibilities and limitations and with this in mind then examine the vocations available to him.

- A. A look at one's self
  - 1. Abilities
    - a. Achievement tests
    - b. Intelligence tests
    - c. Aptitude tests
  - 2. Interests

ACTIVITIES

Discovering Myself, National Forum, Inc. Chicago.

Strain, F. B., But You Don't Understand, A series of Teen-age Predicaments, Appleton

Favin, Gray, and Groves, Our Changing Social Order, D. C. Heath

Emphasize the need for serious thought.

Review or call to mind Unit I, Section 1.

Discuss abilities and different abilities in different individuals.

Give an achievement test, an intelligence test, an aptitude test, and an interest inventory.

Discuss results.

Discuss one's values and possible occupation.

Discuss dreams of future in light of possible jobs.

CONTENT

3. Values
4. Dreams

B. The future direction
   1. The need to make a decision
   2. Choice versus chance
   3. The importance of knowing oneself.

ACTIVITIES

Display a choice chart showing vocations, opportunities, using bulletin board or blackboard.

Study career opportunities and how to investigate them.

Have students list their assets and qualifications.

Use a long term assignment similar to the one suggested. (beginning at this point is a long range assignment.) Each student is given a folder containing pockets. In the pockets are a series of questions about jobs described on the cards of the SRA Career Guide Kit or the U. S. Dept. of Labor job opportunity guides.

The students are to read the reports and answer the questions. (Two days a week)

CONTENT	ACTIVITIES
4. Matching the individual to the job a. Values b. Dreams c. Interests	Have students discuss and compare their values, dreams and interests.
C. The working world 1. Definition of work a. Main activity b. Continuous and regular c. Paid for	Have students offer the points defining work.
2. The value of work a. Meets your needs	Have students list the benefits work will provide for them.
b. (1) Money (2) Security (3) Pride in accomplishment	Use a short story of a working family; analyze the benefits resulting.
b. Considerations (1) Training needed (2) Dealing with people	Have students analyze their own desires as a factor influencing job selection: e.g., a shy person would not want to work with public.
(3) Advancement	Discuss the meaning and validity of the slogan "you can't get tomorrow's jobs with yesterday's skills."

CONTENT	ACTIVITIES
3. The changing world of work a. Jobs on the increase b. Jobs on the decrease c. Stable jobs	Have students research and list types of jobs on the increase, decrease, and those remaining stable.
4. Type of work (interdependence)	Should some jobs be shyed away from?
a. Provides (raw materials) b. Producers (produces (product)	Have students, through displays or drawings, show the circle of our economy.
c. Provider of services d. Miscellaneous	Emphasize interdependence of people.
Sec. II. Preparing for work	
Objective: To help students examine the various roads open to them in acquiring training for the profession they choose.	Students can discuss the various jobs they have or have had and its future possibilities or limitations.
A. Occupational training: semi-professional 1. Semi-professional training a. Junior colleges b. Nursing school c. Technical institutes	Have students write the various types of schools listed and chart the information received.

CONTENT	ACTIVITIES
@. Selecting a school, and comparing schools	Have students select the types of things one must look for in schools; compare these to the the schools heard from.
B. Choosing a vocational training school	
1. Types of schools: training and vocational a. Technical b. Mechanical c. Business d. Flying e. Barber and beauty	Discuss the various types of schools pointing out the differences and similarities. Point out the advantages and disadvantages of each type. Have students determine a list of guides to consider when selecting a school.
2. Considerations a. Skills b. Costs c. Time it takes d. Full or part-time	Here the teacher brings in facts on a dozen schools in the area. Students chart the results according to questions asked in B2.
C. Typical schools in the area	
D. Training on the job 1. Apprenticeships a. Advantages	If possible have a representative of such schools come in. Have a local skilled worker

CONTENT	ACTIVITIES
b. Disadvantages	Explain apprenticeship training in this area.
c. Requirements	
2. Other types of on-the-job training	Show movies.
E. Opportunities for training in the armed forces	
1. Plans available	Have representatives of each service come in and explain various plans.
a. Army	
b. Navy/Coast Guard	
c. Air Force	
d. Marines	
e. Training available	
f. Alternatives	
2. Advantages of service	Bring in a recent graduate who is in service for a discussion.
a. Alternatives	
(1) Enlistment	
(2) Draft	
a. present status	
b. future status	
3. Disadvantages of service	
4. U. S. Armed Forces Institute	
a. Off duty education	
b. On duty education	
c. On-the-job (in service) training.	

CONTENT	ACTIVITIES
5. Women in service	Have a representative from the women's branches come in - treat girls separately.
Sec. III. Finding a job Objective: To give the students an opportunity to simulate the actual employment and job hunting procedures they will encounter later.	Impress students with the importance of being selective. Don't take the first thing that comes along.
A. Contacts to inform one of a job. 1. Friends and relatives 2. Acquaintances 3. Present and past employers	Discuss possibilities of prejudice from "contacts." Stress ability to weigh a good job lead.
B. References 1. Past employers 2. People of position who know you	Have students discuss who to ask for a reference, and who not to. Discuss need to suit reference to job.
C. The need to develop desirable skills and qualities 1. Training in high school 2. Courses that help	Have students recall the courses they have had that they think they should use as important in applying for a job (e.g., woodworking, homemaking)

CONTENT	ACTIVITIES
3. Extra curricular 4. Hobbies	Have students recall hobbies and extra-curricular activities.
D. Development of application sense 1. Competence in filling out forms 2. Competence in an interview	Have students fill out numerous types of job applications. These can be obtained from employment offices and local industries.
E. Sources of job opportunities 1. Direct application 2. Want ads 3. Employment agencies 4. Unions 5. Placement bureaus	Have students use directories and write sample letters of application. Use bulletin board showing want ads from the newspapers. Discuss union and placement bureaus as sources.
F. Keeping the job 1. Good work habits 2. Maintaining competence	Have students list things that could get a worker fired.
Sec. IV. Organized labor Objective: To provide the student with a historical approach to organized labor.	Discuss the role organized labor has played in the development of our country.

CONTENT	ACTIVITIES
A. Growth of American labor movement 1. Knights of Labor 2. American Federation of Labor a. Craft unions (skilled) b. Labor relations 3. New Deal Laws and Labor 4. Congress of Industrial Organization a. Started out as AFL committee b. Semi-skilled and unskilled members c. Role in politics 5. AFL-CIO rivalry and merger 6. Independent unions	Here a historical approach can be followed. Many movies are available. Some research assignments may be made. Newspapers will provide many interesting side lights. Local union officials can come in and shed much light on their value and procedures.
B. Methods of organized labor 1. Independence 2. Union membership 3. Collective bargaining 4. Union Contract	Spiegler and Hamburger, If You're Not Going to College, Science Research Associates, Inc., 1959

CONTENT

- a. N.L.R.A.
- b. Nature of a union contract
  - (1) Sole bargaining agent
  - (2) pay scale defined
  - (3) holidays and vacation
  - (4) pay and fringe benefits
  - (5) seniority
  - (6) management's powers
- 5. The strike
- 6. Pickets and boycotts
- 7. Settling a dispute
  - a. Negotiation
  - b. Conciliation and mediation
  - c. Arbitration
- 8. Grievance Settlements

C. Union practices - criticized

- 1. Corrupt unions
- 2. Labor racketeering
- 3. Featherbedding
- 4. Communist dominated unions

D. Management's Role

- 1. Efficient Operation

ACTIVITIES

Blarch and Baumgartner, The Challenge of Democracy, McGraw-Hill Book Co., Inc., 1960 (of value to teachers only)

Blarch and Baumgartner, The American Workers Fact Book, U. S. Dept.of Labor, 1956.

Taft, Philip, The A.F.L. in the Time of Gompers, Harper Bro., 1957

Eiszig, Paul, The Economic Consequences of Automation, W. W. Norton & Co., 1956

Materials the Unit is Based On: About Marriage and You, Family Living Series, Cosgrove and Josey, Science Research Associates, 1954, Chap. 1 - 12

CONTENT

- a. Produce goods
- b. Provide employment
2. Injunctions
3. Black list
4. Lock out
5. Company unions
6. Strike Breakers

E. Present Issues

1. Seniority
2. Union shop
3. Hours and wages
4. Fringe benefits
5. Guaranteed annual wage

ACTIVITIES

If You're Not Going to College, Spiegler and Hamburger, Science Associates, 1959, Chap. 2

Numerous Teacher Prepared Exercises

SAMPLE UNIT

CONSUMER EDUCATION: LEARNING TO MANAGE MONEY

Objectives:

1. To point out the need for a plan of money management.
2. To make available to the students methods of money management, and to make available methods by which one can gain the maximum advantage from expenditures.

3. To provide experiences for the student which will make possible a more intelligent use of his money.

CONTENT	ACTIVITIES
I. Money	
A. Sources of money	Barter system - gold and silver.
1. Earnings (wages, salary, etc.)	Money saved by self service and substitution is income.
2. Gifts	
3. Self service (do-it-yourself)	Discuss painting own house to save money, and using park facilities rather than building one's own swimming pool or basketball court.
4. Substitution	
B. Function of money	
1. Basic needs	
a. Food	
b. Shelter	Discuss cost of living, find out from parents how much it costs to live.
c. Clothing	
d. Operating	
e. Transportation	Take trips to clothing stores, auto agencies: what should one look for when buying a car?
2. Desired items	
a. Recreation	
b. Conveniences	
c. Special services	
II. Money and the individual (Much emphasis can be placed on this)	

Explanation of Supply and demand

Basic national Economics

Inflation

Money wasted through destruction and vandalism

Super Market	Goods Money Services	Money Produce	Place of Employment

Man is a consumer and a producer.

Total Economy

CONTENT	ACTIVITIES
A. Income	Compare hourly rate of pay-piece work; weekly-bimonthly-monthly-yearly.
1. Wages	
2. Salary	
3. Profits	Discuss sharing a business--advantages and disadvantages.
B. Our income and fixed expenses	
1. Taxes	Discuss purpose of taxes--defense, roads, schools on federal, state, and local levels.
a. Federal	
b. State	
c. Local	
2. Social Security	Explain G.N.P. and the national debt.
3. Dues	
4. Insurance	Discuss Social Security-retirements.
a. Health and hospital	

CONTENT

- b. Accident
- c. Property and liability
- d. Life

C. Income and savings
  1. Objectives of income
  2. Objectives of saving
     - a. Short term
     - b. Long term

III. The Budget
  A. Types of budgeting
    1. Percentage
    2. Essentials first
    3. Experience
  B. Budgeting experiences
    1. Student budget
    2. Mr. Brown budget
    3. Mr. Jones budget

IV. Credit
  A. Installment buying
    1. Advantages
    2. Disadvantages
    3. Terms

ACTIVITIES

Discuss union plans and professional insurance plans.

Explain the different types.

Have an insurance man come in.

Discuss saving for "that rainy day", Christmas club, a home, car, or vacation.

Bring a financial budget from a business or company and examine it.

Make up different budgets--family/personal.

Keep receipts.

Bring in resource person from finance company able to explain necessity for good budgeting.

Bring newspaper ad to class, (i.e., $200--35.58 up to 3 years: how much are they really paying?)

CONTENT	ACTIVITIES
a. Credit	Invite resource people from a bank and a credit bureau.
b. Discount	
c. Cash	Give class experience of figuring interest on loans and savings.
d. Carrying charges	
B. Interest	
1. Time payment	
2. Simple	
3. Compound	
C. Credit rating and credit bureau	
1. Ability to pay	
2. History of payment	
V. Banking	
A. Saving account (investment)	Take field trip to bank.
B. Checking account	Discuss writing checks and keeping a bank account.
C. Source of loans	
VI. Borrowing money-Loans.	Contact various places to borrow money and compare rates of interest.
A. Banks	
B. Loan companies, finance companies	
C. Credit bureau	
VII. Principles of buying	Examine various brands and products by visiting stores to learn of quality.
A. Making a purchase	

CONTENT	ACTIVITIES
1. Judgment in making a choice	
2. Purpose of the purchase	
B. Buying Guides	Play roles: dramatize a situation involving resistance to pressure sales.
1. Consumer service bulletins	
2. Newspapers	
C. Consumer's responsibility for examination of goods and products	

Source materials:

Carson, E. O., Teenager Prepares for Work, 1962.

Everly, M. S., A Discussion of Family Money, "How Budgets Work and What They Do", 1952, Women's Division Institute of Life Insurance, New York.

Household Finance Corp., Money Management.

Heuer, L. A. Ed., "Your Recreation Dollar".

King, M. B., "Your Shelter Dollar".

Heuer, L. A. Ed., "Your Shopping Dollar".

Heuer, L. A. Ed., "Your Clothing Dollar".

Changing Times, Kiplinger Service Magazine, Aut., 1965, Feb., 1957, June, 1965.

Consumer Reports, monthly consumer information magazine.

Consumer Bulletin, monthly consumers information magazine.

SCIENCE

Although science can be a highly technical subject, all students--regardless of interest or ability--can be motivated and taught the basic principles. Science can be a boring obstacle in many students' school life or it can be a highly interesting and fascinating learning experience.

It has been mentioned before that in order to hold a student's interest and to teach him anything, he must be an active participant. In the classroom he must be a member of a team investigating the wonders of learning, not just absorbing facts related to him. He must learn to question the whys and hows and be able to reach some conclusion on his own.

The following science units keep in mind that many of the students in the dropout-prone group are uninterested in the traditional school approach and fear that science consists of facts to be memorized and not used.

Science is taught on a semester basis in the junior high program and therefore the units chosen are ones that can be taught twice a year and still benefit both groups.

During the first semester the unit on living things will be taught first because of warmer weather. During the second semester it will be taught last, in the spring.

Objectives:

1. To further children's natural interest and curiosity in science.
2. To promote understanding of the physical and natural phenomena of the world about them.
3. To make science interesting.
4. To arouse the childrens' curiosity concerning scientific experimentations.
5. To teach the children some of the basic scientific skills.
6. To correlate the material covered with practical, everyday uses.

Seventh Grade Science

Objectives:

1. To develop in the student an awareness of the things around him..
2. To develop creative thinking based on certain scientific facts.
3. To develop ability to work in small groups to solve specific problems.
4. To develop an ability to draw reasonable conclusions from careful observations.

CONTENT

I. Knowing the environment
  A. What is science?
    1. Accurate knowledge of facts about the things and forces in our world
    2. Orderly knowledge
  B. Kinds of science
    1. Geology
    2. Zoology
    3. Meteorology
    4. Chemistry
    5. Astronomy
    6. Biology
  C. Defining an experiment
  D. Characteristics of a scientist
    1. Observation
    2. Curiosity
    3. Open-mindedness
    4. Accuracy
    5. Always testing
  E. Defining environment

ACTIVITIES

Have group discussion on science and recent gains that have been made.

Demonstration: Using such equipment as graduated cylinder and balance scales, show the importance of careful planning and accuracy.

In small groups the class can investigate the various fields of science, write reports and relate to the others the more interesting facts.

Have class do demonstrations of their own to promote feeling of participation.

Demonstration: Blindfold some students and place objects in their hands--the importance here being to instill the

CONTENT	ACTIVITIES
1. The things around you 2. Forces around you	characteristics needed by scientists when investigating and describing something.
F. How things in our environment act 1. Matter as the substance of all things 2. Gravity's influence on matter	Show film on matter. Many demonstrations can be used here to explain things and forces around the students.
G. The forms of matter 1. Solid 2. Liquid 3. Gaseous	Show any simple demonstration for changes in forms of matter and showing the three forms.
II. Use and control of fire A. How we make fires	Show film on fire safety and control.
1. Fuel a. Wood b. Coal c. Paper	Discuss which are better fuels; wood, coal, natural gas, etc.
2. Air 3. Kindling temperature B. Control of fires 1. Keeping fires confined	Demonstration: Making coke. Place crushed soft coal in test tube with vented stopper and heat. When hot, place flame by vent in stopper to show gas

CONTENT

  - a. Furnaces
  - b. Stoves
  - c. Campfires
- 2. Regulating fuel
- 3. Regulating oxygen

C. Prevention of fires, safety rules

D. Learn to extinguish fires

- 1. Removing fuel supply
- 2. Cooling burning materials below kindling temperatures.
- 3. Shutting off air supply
- 4. Using materials to put out fires
  - a. Water
  - b. Carbon dioxide
  - c. Sand
  - d. Other types of fire extinguishers

III. Definition of electricity

A. Electrical charges

ACTIVITIES

coming off. When test tube is cooled, remove coke and examine.

Give demonstration to show that kindling temperatures vary and that air is necessary for a fire.

Show film strips on dangers of rubbish in attics, basements.

Have groups in class write up safety rules to follow.

Hold demonstration in class to show methods of extinguishing small fires.

Discuss and report on spontaneous combustion and how to prevent this.

Show film on how electricity serves us.

CONTENT	ACTIVITIES
1. Static electricity a. Positive charges b. Negative charges 2. Current electricity	Give demonstration including comb, wool and hanging paper. Rub glass rod on silk, and move glass rod near paper (like, un-like.)
B. How we can control electrical current 1. Conduction a. Copper b. Other metals 2. Use of insulators 3. Use of fuses a. Overloaded circuits b. Short circuits 4. Use of switches	Demonstration: Hook lights in parallel and series using dry cell, switch, and fuses showing control of electric current.
C. Cells and batteries 1. Wet cells 2. Dry cells a. Why dry cell is better b. Uses of dry cell	Demonstration: Using zinc and copper strips, sodium chloride solution (salt) and insulated copper wire for wet cell. Dissemble old dry cell to show structure and advantage (no liquid to spill.) Discuss various uses of dry cells, flashlights, radios, etc.
D. Magnetism and electricity 1. Poles of magnets	

CONTENT	ACTIVITIES
a. N. Poles b. S. Poles c. Like poles d. Un-like poles	Have demonstration with iron filings and magnets to show lines of force around a magnet. Demonstration: using two bar magnets show how like repels, unlike attracts.
2. Types of magnets a. Permanent magnet b. Temporary magnet c. Electromagnets	Demonstration: using nail and coil of wire wrapped around nail, connect wires to dry cell showing electromagnet.
3. Magnets and coils to produce electricity	Demonstration: involving insulated copper wire wound around simple mailing tube; connect galvanometer to coil and pass a magnet back and forth inside coil of wire; notice galvanometer.
IV. Simple machines A. Definition of work 1. Definition of foot-pound 2. How we measure it B. How machines work for us	Show film on simple machines. Demonstration: Show concept of work using one pound weight, yard stick and spring balance.

CONTENT	ACTIVITIES
1. Advantages of using machines	Show that all physical work can be measured this way.
2. Advantage of using two or more simple machines	Discuss how different machines work.
3. Some common simple machines around the house	Have students in small groups use various machines and discover how some machines have different advantages than others.
	Have students bring examples of simple machines from home.
C. Definition of a lever.	Demonstrate a first-class lever, scissors, pliers, nutcracker;
1. First-class lever	second-class lever, broom or
2. Second-class lever	raising hand to shoulder.
3. Third-class lever	
D. Definition of force	
E. Definition of a fulcrum	Show fulcrum by using block and bar.
F. Definition of resistance	
G. Wheels and axles	Winch will show wheel and axle
1. How we use them	
2. How they evolved	Write and report on some simple machines that students use in everyday life.
H. Inclined plane	

CONTENT	ACTIVITIES
1. Wedge	Pencil sharpener.
2. Screw	Pull weight straight up and then pull up inclined plane to show advantage.
I. Definition of friction	Demonstration: Using spring balance pull heavy object across table. Repeat by placing pencils under object to show less friction.
1. Ways in which friction helps us	
2. Attempting to work without frictions	
J. What is gravity:	Drop certain objects to show gravity.
1. Ways in which gravity helps us	Discuss how it would be to live without gravity. Recent space travel will help in these discussions.
2. Working with gravity	

Seventh Grade Lesson Plan Sample

The use and control of fire

Time: approximately three weeks

Objectives:

1. To develop an understanding of what happens when something burns.
2. To develop an understanding of some of the causes of fire.

3. To teach proper use of fuels and combustible materials.

4. To teach methods of regulating and extinguishing fires.

5. To teach fire prevention.

6. To teach safety measure to be taken in case of fire.

CONTENT

I. Definition of fire
    A. Definitions: burning, oxidation, combustion
    B. What happens when a material burns
        1. Chemical changes effected by fire
        2. Physical changes effected by fire
        3. Products of fire
            a. Heat
            b. Light
            c. Carbon dioxide
            d. Water vapor

ACTIVITIES

Have discussion based on questions: is fire helpful or harmful? In what ways?

How does user of fire determine whether it's helpful or harmful?

Burn paraffin candle to show heat melts paraffin, it becomes gas, giving off heat, etc.

Discuss how carbon dioxide and water vapor are given off by fire. Put burning candle in jar, then put in limewater to test for carbon dioxide.

Hold glass over flame to see water vapor. Blow out candle and immediately after put a lighted match near one-inch

CONTENT	ACTIVITIES
	wick. (Candle should relight, giving evidence of gases around wick.) Examine candle flame with magnifying glass to observe three regions of flame. Hold white card horizontally across flame, removing it when scorching starts. Examine circle formed by charred region, indicating that center of flame is cooler. Hold card vertically in flame. Charred regions show hottest part of flame.
II. Necessary for fire. A. Fuels	Make drawing of flame showing hottest part, etc.
1. Kinds of fuels 2. Advantages and disadvantages of each	Have discussion of various kinds of fuels, advantages and disadvantages of each. What are the main requirements for a good fuel?
	Have class find out what fuels are used to heat their homes.

CONTENT	ACTIVITIES
B. Kindling temperature 1. Use of friction to reach kindling temperature 2. Use of electric current to reach kindling temperature 3. Spontaneous ignition	Discuss the productions of a kindling temperature. Take two wood splints and wet one; hold both in flame to see which ignites first. Make tray of piece of paper. Place on screen or tripod. Boil water without burning paper (kindling temperature of paper above 212° F.) Hold candle, celluloid film, twist of paper, twist of cotton, cloth, wood splint, and piece of coal to flame. Time to see how quickly each ignites.
C. Oxygen 1. Importance of draft 2. Use of chemical	Put candles under different sized glasses. (Smallest should go out first because of less oxygen.) Compare burning rates of solid iron and iron filings; wadded paper and flat sheet of paper.

CONTENT

ACTIVITIES

Wrap wire around candle, put in jar, cover. Remove it when it goes out, quickly recovering the jar and relighting the candle. Put in covered jar again. (The candle won't burn as long since oxygen is used up.)

Put smoking wood splint around candle to see direction of air currents. Discuss importance of draft, use of chimneys.

Make drawing to show currents of air around a fire.

Have discussion on the causes of combustion. Make a small cone-shaped pile of potassium permanganate crystals on an asbestos pad. Moisten slightly and add drop or two of glycerine. (it should ignite within a few minutes to illustrate spontaneous combustion.)

CONTENT

III. Extinguishing fires

- A. Removing the fuel supply
- B. Cooling below kindling temperature
- C. Removing oxygen

ACTIVITIES

Discuss the three requirements for fire and how removing any one extinguishes a fire.

Discuss use of water to extinguish fires.

Light small fire on a metal tray and douse it with water.

How did the water put out fire?

Make an automatic sprinkler by punching holes in a can and closing the holes with wax. Fill can with water and set lighted candle under it.

Discuss the danger of using water on gasoline and oil fires.

Put saucer with a small amount of kerosene into large metal pan. Carefully light the kerosene. Pour water over fire. Burning kerosene will spread into pan. Discuss the use of carbon dioxide to extinguish fires.

CONTENT

ACTIVITIES

Dissolve baking soda in water: add vinegar; lower lighted candle into jar. (The flame will be extinguished.)

Make a foam extinguisher by mixing 5 grams of baking soda, 1 gram of licorice powder and 50 milligrams water in beaker. Put 5 grams of aluminum and 50 milligrams water in another beaker. Pour the two solutions together into 500 milligrams beaker and extinguish a fire with it. Discuss the best uses for a foam extinguisher.

Make a fog spray by using atomizer on jar of water, soda straw cut in half and held in position by modeling clay. Discuss the uses of fog spray exginguishers.

Make a soda-acid extinguisher

CONTENT	ACTIVITIES
	by nearly filling bottle with baking soda solution. Nearly fill test tube with vinegar and place in bottle. Screw on cap with small hole in center of it. Pour on burning paper.
IV. Preventing fires	Discuss fireproofing materials.
A. Proper use of fuels	Fireproof a strip of cotton cloth by dissolving 10 grams boric-acid and 10 grams borax in 400-500 milligrams water. Boil a strip of cotton in this solution for 10 minutes. Compare burning rate with that of untreated cloth.
B. Proper use of electricity	
C. Removal of common fire hazards	
	Fireproof piece of paper in solution containing warm water, 2 ounces ammonium sulfate, 1/2 ounce borax, 1/2 ounce boric acid. Compare burning rate to untreated paper.
	Discuss inflammability of clothing: recall burning rates.

CONTENT	ACTIVITIES
	Discuss fire hazards.
	Demonstrate the right way to strike a match.
	List common fire hazards in the home and how to eliminate them. Make posters for bulletin board using diagrams to demonstrate proper uses of combustible materials, electricity, and common fire hazards.
V. Steps that should be taken in case of fire. A. Knowledge of proper exits B. Knowledge of fire alarm systems	Discuss fire drills, importance of keeping calm, knowing proper exits, best ways to warn others of fire, etc.
	Inspect fire extinguishers, locations, proper use, etc.
C. Proper steps to be taken if clothing catches afire	Discuss what to do if clothing should become ignited.
	Demonstrate proper way of smothering flaming clothing using old blanket or sheet.
	Visit fire station.

Eighth Grade Science

Objectives:

1. To develop an interest in the students' environment.
2. To develop an understanding of the inter-relationship among living things including man.
3. To develop an understanding of how plants and animals have adapted themselves to their environment.

CONTENT	ACTIVITIES
I. Living things - plant kingdom A. Seeds 1. Beginning of plants 2. Seeds as storage place of food for plants	Have question and answer discussion to introduce unit. Show film strips.
B. Root systems 1. For fixing to ground 2. For getting food	Prepare scrapbooks with pictures of foods and living things.
C. Plants 1. How plants take in food 2. How plants take in carbon dioxide 3. How plants give off oxygen	Have small groups conduct various demonstrations. Encourage leaf, seed collections. Take field trips to observe living things to develop greater awareness.
D. Food from living things 1. Food we eat	

CONTENT

2. Other materials that plants provide
    a. Fibers for clothing
    b. Building material
    c. Minerals and humus for soil

E. Group of animals
  1. Animals with back bones.
    a. Characteristics
      (1) Snakes
      (2) Fish
      (3) Rabbits
  2. Animals without backbones
    a. Characteristics
      (1) Octopus
      (2) Spiders
      (3) Earthworm
  3. Insects
    a. Harmful
    b. Useful

ACTIVITIES

See how plants "prepare" for winter and come out in the spring.

Invite resource people from conservation department, farmers.

Use microscopes to show plant cells and fibers.

Have students write about animals, describing them without naming the animal and having class guess what animal is being described.

Take field trips to farms, wooded areas, zoos, etc. to show differences in animals.

Have students relate experiences to class about pets or happenings with other animals.

Collect and study some insects (caterpillars spinning cocoons.)

CONTENT

F. Food cycle
  1. How plants help men and animals
    a. Food chain
    b. Shelter
  2. How animals and men help plants
    a. Contribute to oxygen cycle
    b. Help to contribute necessary minerals
G. Resemblances of living things
  1. Locomotional
  2. Growth
  3. Hunger
  4. Other needs

II. Weather
  A. Kinds of weather
    1. Seasons
      a. Spring
      b. Summer
      3. fall

ACTIVITIES

Invite resource people from conservation department, farmers.

Show complete food cycle and have students relate examples of food cycle.

Show plants turning away from sunlight to demonstrate plants move and grow toward light.

Show Venus fly-trap.

Have students in small groups keep weather records beginning with temperature, rainfall, etc.

Attempt to interest students in making weather forecasts without any knowledge of weather conditions.

CONTENT	ACTIVITIES
d. Winter	Have demonstration with sun
2. Seasonal storms	lamps on pans of soil,
a. Rains	changing angle and distance
b. Thunder	from pan, to explain seasons.
c. Sleet	Demonstrate water evaporation,
d. Snow	dew point.
B. Cloud types and fog	Show film strips
1. Cirrus	Conduct daily observation of
2. Stratus	types of clouds.
3. Cumulus	Construct cloud types with
4. Nimbus	cotton.
5. Combination forms	Have bulletin board displays
	showing types of clouds.
C. Weather forecasts	Have students relate incidents
1. How are forecasts important to us?	when some kind of weather
	prevented them from doing
a. Air travel	something.
b. Ocean travel	Take field trip to airport or
c. Farming	weather station, showing
2. How are forecasts made?	different devices for helping
a. Wind directions	to predict weather.
b. Cloud types	Students can construct some of
c. Temperature	their own rain gauges,

CONTENT

D. Climate
  1. Causes of differences in climate
    a. Earth rotation
    b. Earth revolutions
  2. How man and animals live differently in the world
    a. Adapting to climate
    b. Living habits

III. The heavenly bodies
  A. Stars
    1. Luminous
    2. Illuminated
    3. Sun as a star
    4. Size of our stars
      a. Largest star

ACTIVITIES

anemoeters, barometer, etc., keeping up with records they started earlier in unit.

Compare their readings and forecasts with radio and TV weather reports.

Discuss and report on various places in the world and type of climate.

Observe different animals and report to class on how they live.

Discuss characteristics of animals, e.g., fur on animals.

Discussion on different conceptions of how the universe began.

Read stories of ancient Greeks concerning the heavens and gods.

Show film on universe.

CONTENT

- b. Smallest star
- 5. Brightness of our stars
  - a. Light years
  - b. Speed of light
- 5. Constellations
  - a. Big dipper
  - b. Little dipper
  - c. Other constellations
- B. Using telescopes to study stars
  - 1. Types of lenses

ACTIVITIES

Demonstrate differences between lumination and illumination.

Show film on solar system.

Discuss speed of light with demonstration showing difference between light and sound.

Give work problem using speed of light (carry over into arithmetic classes.)

Construct light boxes to be used by classes.

Make some star charts to be used in light boxes.

Darken room to demonstrate. (Children can take light boxes home with them and use at night.)

Construct simple telescopes in class using convex lens.

Use students in class to

CONTENT

- a. Convex
- b. Concave
2. Kinds of telescopes
    - a. Refracting
    - b. Reflecting

C. Definition of a planet

1. How planets revolve
2. How planets rotate

D. Solar system

1. The sun as the center of our solar system
    - a. Orbiting of the planets
    - b. Distance of the planets from the sun
2. The moon in our solar system
    - a. Moons of different planets
    - b. Movement of moons

IV. Changes in the earth's surface

A. The formation of mountains

ACTIVITIES

represent planets. Students go through movements similar to planets to show revolution and rotation.

Draw solar system using scale; then construct a dimensional figure showing relative distances.

Darken room, using a ball and a lamp. Have students demonstrate how the moon revolves.

Hold demonstration showing eclipses.

Show film on formation of the earth.

CONTENT

1. Contraction
2. Pressure
3. Faults
4. Volcanoes

B. How did our minerals form?
1. Limestone
2. Coal
3. Petroleum

C. Changes brought about by wind and water
1. By water
    a. Erosion
    b. Dissolution
2. By wind
    a. Wind as a carrier of particles
    b. Wind can wear down
        (1) Wind and sand dunes
        (2) Wind and soil

D. How ice changes the earth's surface

ACTIVITIES

Have demonstration by heating glass tubing and dropping water on hot tubing.

Push flat piece of paper up from corners.

Demonstration: place balloon attached to straw under some soil and blow through straw to show volcano formation.

Construct volcano from clay or other material showing layer below earth.

Demonstration: pour soil in a jar of water to show sedimentation. Stir soil, filter, and let water evaporate to show minerals.

Demonstration: pour or trickle water over loose soil to show erosion, using different soils--fine sand, gravel, etc.

CONTENT	ACTIVITIES
1. Expansion when water freezes	Use bicycle pump and force air over soil to show how wind can erode soil and formation.
2. Melting snow packs together	
3. Glaciers	Show film.
a. Deposits left by glaciers	Invite resource people from conservation department.
b. Large depressions left by glaciers to form lakes	Demonstration: Fill jar with water. Tighten lid and freeze to show expansion.
	Show when foliage will help to stop erosion either by wind or water.
E. Determining the age of the earth	Show films on fossil study, oceanography and astronomy.
1. Study of fossils	
2. Amount of salt in the ocean	
3. Study of stars	

Tenth Grade - Living Science

Objectives:

1. To develop a better understanding and appreciation of living things and man's relationship to them.
2. To create an awareness of the importance of living things.
3. To help students realize the importance of natural resources and proper conservation of our resources.

CONTENT	ACTIVITIES
I. Science and its contribution to ways of life A. Science as factor in changing man's way of life 1. How beliefs are acquired 2. How science has changed man's belief B. Defining science 1. Attitudes that characterize science 2. Procedures that characterize science	Discuss science and how the students think science has helped them and changed their life. In small groups have students list superstitions and then discuss how some of these might have come about. Distinguish between actual beliefs and superstitions. When students come to discover beliefs are acquired through observation, have students look at pictures and describe these.

CONTENT	ACTIVITIES
	Science can be defined and small group discussions can be held to determine the meaning of the term "attitude" and what could be some undesirable attitudes.
	Have small group demonstration to show procedures that characterize science.
	Introduce words that will help students understand.
II. The cell: function of living things	Show film on the cell.
A. Life science	Define life science and list some of the life processes.
B. Life processes	
C. Cell theory and parts of a cell	Show that these processes occur to some degree in all living things.
D. How cells are organized in living things	Take field trip to see abundance of living things in a small area.
	Show film on historical point of view on cell theory.

CONTENT	ACTIVITIES
	Discuss and list some of the knowledge of plants and aminals and how this knowledge was limited to the naked eye observation. An aquarium is a good place to start having a class observe life processes (this same aquarium will provide materials for later demonstration such as balance of nature, etc.)
	Use miscroscope to see cell structure and the difference between plant and animal cells.
III. Protoplasm: matter and energy A. How living things differ from non-living things B. Definition of matter C. How raw materials enter and leave cells	Make display of living and non-living things.to show distinct differences and how living things differ from non-living things. Use number of objects and living things and list

CONTENT	ACTIVITIES
D. Energy for life processes E. Definition of protoplasm	characteristics which these might have in common--define and show forms of matter. Demonstration: show different forms of energy and present to class questions for discussion on energy. Demonstration: show how materials can enter plants. Study questions presented to class and answered in small groups on the nature of protoplasm. Discuss elements and compounds and how they make up protoplasm.
IV. Photosynthesis and its requirements A. How sun's energy is used B. The products of photosynthesis	Demonstration: show that oxygen is given off by green plants in presence of sunlight. Show film on photosynthesis

CONTENT	ACTIVITIES
	Discuss oxygen cycle and show how this is important to man and plants. Demonstration: show that plants need sunlight to manufacture food, and discuss what materials are needed to carry out photosynthesis.
V. Classification of plants and protists. A. How classification system is developed. B. Definition of protists C. Some of the simple green plants D. Plants without chlorophyll E. Characteristics of non-flowering seed plants F. Characteristics of flowering plants	Show film to introduce unit showing abundance of life on earth. Show the importance of the classification of living things and also some features of classification. In small groups examine some slides under microscope to see bacteria and different shapes and characteristics. Show characteristics of different plants.

CONTENT	ACTIVITIES
VI. Classification of animals A. General characteristics of animals B. Some of the simpler animals C. Higher invertebrates D. Vertebrate or higher animals	Film on classification of animals Display some of the different animals and list how many ways they differ. List different kinds of foods they eat, their habits, method of movement, value to man, etc.
VII. Man: a biological organism A. Food requirements and digestion of man B. Function of circulatory system C. Function of respiratory system D. How waste materials are removed from the body E. Features and functions of man's skeletal and muscular systems F. Man's nervous system	Show film on various systems in the body. Discuss and list functions that are important and necessary to man. Obtain plastic models and show the various systems. List and study various food requirements for man. Introduce new words to increase better understanding. Introduce main parts of each system (without going into too much scientific explanations.)

CONTENT

VII. Reproduction in living things

- A. Reproduction and continuation of life.
- B. How characteristics are passed from generation to generation

IX. Dependency of living things

- A. Plant and animal habitats
- B. Materials used and re-used in nature
- C. Balance in nature

ACTIVITIES

Obtain frog's eggs and place in water where plants are present.

Obtain tadpoles to show various stages of life.

Have eggs in different stages of incubation to show life stages.

Obtain cocoons to explain how this is a stage of life.

Discuss environment and how this affects all animals.

Discuss group animals and their environments and habitats (land and water).

Discuss the theory that all living things came from water. What observations would account for this belief?

Have small group of individuals report on some of the material used and re-used in nature. (Discuss some industrial uses.)

CONTENT	ACTIVITIES
	Explain and show examples of food chain (the aquarium can be used here.)
	Show how we are involved in food chains.
X, Resources and proper use A. Definition of natural resources	Invite resource people from conservation department.
B. Conservation of soil C. Importance of forests, wildlife and water	Show objects in classroom and explain natural resources used in their production.
D. Controlling insects	Take field trip to farms showing importance of soil conservation.
	Discuss importance of insects. (Some insects that may be harmful to man can be beneficial to other animals.

ARITHMETIC

The following description of the arithmetic program is not meant to be all inclusive. A complete set of pupil materials for teaching the number system and the four fundamentals and fractions is used in the seventh and eighth grades. Space does not permit including this material.

Objectives:

1. To improve skills in subtraction and division.
2. To review addition and multiplication.
3. To improve ability to solve problems.
4. To enable children to associate with arithmetical problems they will encounter in daily life.
5. To broaden vocabulary.
6. To get into habit of trying and succeeding.
7. To form habits of following written instructions.
8. To learn to deal with mistakes and turn them into learning experiences.

Seventh Grade Arithmetic

Objectives:

1. To reaffirm existing basic skills in arithmetic and develop new ones where needed.
2. To develop a practical application of the skills.

CONTENT

I. Working with numbers in sports
  A. Addition
    1. Cost of pieces of equipment
    2. Cost of equipment for one player
    3. Cost of entire team
  B. Subtraction
    1. Yardage made in plays
    2. Difference remaining from ten yards
    3. Difference remaining from entire field
  C. Perimeters
    1. Definition of a perimeter
    2. Measuring a football field
    3. Establishing a formula for drawing a football field
    4. Changing perimeter to feet, yards, and inches

ACTIVITIES

Show film of a football game.

Discussion of pep rallies, school song, players, cheers, and discussion of football, the team and players.

Determine number of players on team.

Use athletic equipment catalogue.

"Play" mock football games, keeping scores on games played. Make a model scoreboard.

Construct football field on brown paper using 1/2"=10 yard scale.

Girls can make pom-poms using proper measurements.

Groups can find perimeter of other objects in the room (difficulty according to ability.)

CONTENT	ACTIVITIES
D. Determining averages 1. Addition 2. Division 3. Subtraction a. Differences in averages between teams b. Differences in won-lost records of teams	Secure several football programs giving height and weight of football players. Have small groups figure average weights of football teams. Then average weights of lines and backfields. An additional activity for faster students: determine the distance traveled to another town to see a game, cost per student, cost for a bus load of students.
II. Using numbers in selective buying A. Making change	Students think of interesting purchases they have made. In groups they compose and write an addition problem giving the necessary information. Teacher will collect one from each group and solve at flannelboard. Introduce flannelboard material by giving

CONTENT	ACTIVITIES
	addition problem to students at blackboard and flannelboard. Have student at flannelboard count out change for bill just higher than the total. This method will be used later for other projects.
B. Using numbers in restaurants 1. Addition	Select food from a drive-in-menu.
2. Subtraction	Estimate total cost, sales tax, and present to cashier at flannelboard. Cashier counts change from $2.00, places on flannelboard, and demonstrates to class. Students can take turns at flannelboard.
3. Multiplication	Using various restaurant menus, have students order meals for a whole day. Before starting, explain state sales tax and how to figure mentally.
	Learn to compute tax mentally.

CONTENT	ACTIVITIES
	Work problems together mentally.
	Figure 4¢ per dollar and 1¢ per fractional part of a quarter thereafter (13¢, 38¢, 63¢, 88¢)
4. Decimals	Second, multiply by decimal .04 and round off to nearest cent.
	Put problems on board for practice.
	Use menus from several different restaurants, have small groups work on these to order dinners for a family of four--each students ordering different food, but all from one menu.
	Total, multiply by .04 to compute tax, find total cost, and figure change from $20.00
	Practice counting change.
C. Using numbers in shopping	Collect newspaper advertisements and catalogues.

CONTENT	ACTIVITIES
1. Determining total cost of items 2. Computing tax	Look through these for a few minutes and discuss ordering by phone. One student can call order in by phone and class can write it down.
	Determine if this is enough information to get it from mail order house and to the customer. Practice making orders by phone and by writing order to send.
3. Learning to write checks	Have dummy checks for class to practice writing. Discuss benefits of check writing. (This unit, as all units, is meant to be integrated with units in social studies.)
III. Working with numbers in space relationship and measurements A. Estimating measurement	Construct buildings appropriate in size to house various aspects of city life, e.g., factories, grocery stores, school, etc. Try to include numbers of stories, doors,

3

CONTENT	ACTIVITIES
	windows, number of people occupying building, etc.
B. Square measure	Center a discussion around blocks in the city, also blocks (square unit) within a city ward. Devise a formula for finding square measure and apply to other objects in the classroom or figures outlined on flannelboard.
C. Review of perimeter	Recall formula. Find perimeter of city if each block is 1/8 mile in length. Also, the perimeter and area of airport, various zones, parks, etc., miles of major highways through the city, estimated or computed.
	Apply to objects in the room.
D. Constructing geometrical figures 1. Angles 2. Circles 3. Squares 4. Triangles	Construct geometrical figures similar to blackboard. Introduce angles and how to construct and measure with protractor, how to bisect.

CONTENT	ACTIVITIES
	Introduce constructing circles, squares and triangles.
	Construct these to precise measurement using ruler, compass and protractor.
	An additional activity: try to duplicate drawings from text books using only compass and ruler and then create some new designs on own.

Seventh Grade Sample Lesson Plan

The purpose of the math program at this level is to provide experience for the child to grasp the basic skills and abstract reasoning needed to carry on his daily activities no matter the job of which it may be a part.

The most important thing is the method of presentation and the degree of the child's acceptance of this presentation. The greatest enemies are frustration and boredom. Unless these are attacked on their own basis, no type of program in the Curriculum Demonstration Program can succeed.

The idea is not to throw out completely the materials used at present. This would be a handicap to both the teacher and the pupil since this material has come over the years to be accepted as necessary in the child's schooling and education in general.

The foregoing unit will attempt to keep these things in mind in trying to lace together a particular unit using the earlier criteria.

The basis for this unit is a study of retail buying concerning purchasing and multiple units.

Objectives:

1. To orient children to the practice of shopping.
2. To make them conscious of the need for comparison.
3. To enable them to think mathematically through a retail purchase.
4. To introduce children to sales tax computation.
5. To orient children to installment buying and to promote skills in figuring interest charges.
6. To introduce children to a simple budget and promote understanding of computing one.
7. To improve skills in basic computation of addition, multiplication, subtraction, and division.
8. To enable students to begin reading advertisements critically.
9. To introduce differences in quality and quantity buying.

Materials to be used:

Much of the material used in this unit would be free material the teacher could easily obtain. The materials should be kept as simple and as familiar as possible to insure a certain degree of association by the child to problems in everyday living. The materials mentioned hereafter will be followed up individually later in the unit when discussing methods and procedures to follow in the classroom. The following list is not intended to be complete, but indicative of the type of materials that can be employed:

1. Newspapers, especially grocery store advertisements,
2. Catalogues from large retail mail order houses,
3. Flannel boards and flannel coin cutouts (penny, dime, nickle, etc.) for practicing change making,
4. Large poster board menus for computing food costs in restaurants,
5. Teacher-made advertisements for certain types of retail stores,
6. Television commercials (used for instruction in reading and hearing advertisements critically),
7. Problem situations made up by committees of the children.

The creative teacher, using these asa basis,can provide a great deal of interesting material for the pupils' use. By using committees of children to help formulate some problem situations, a greater understanding of the problems may be realized.

Procedures to be followed in the classroom:

The following discussion of procedures is meant to be a framework in general and not a program of specific procedure in its entirety. Many good teaching situations arise out of the interaction of the teacher and pupils rather than from the unit as planned.

However, by using the following procedures, many of the results may be accurately predicted. These procedures are formulated mainly to be used in a classroom of about twenty children, although the procedures are flexible so they could be used by a classroom of more or less pupils. One of the most important factors is that each child be able to participate freely in this. It is important to the child that he receive the opportunity to practice what he learns. The child who is not allowed to participate as often as he might wish can easily lose interest, become bored, and interrupt what otherwise might be a very good learning situation.

Breaking up the pupils into small groups will help to insure participation by each child. By working in the smaller groups, it is very possible that children may come up with good suggestions that might otherwise be overlooked or passed over in an entire group.

A great deal of information and materials should be on hand, and available immediately upon introduction of the unit. If time is wasted, or if a great deal of time lapses between initial introduction of the unit and actual participation, a child will lose interest.

The proper presentation is more important perhaps than the procedures that follow, for this is the time when the child will formulate his own views on whether or not he will actively participate in the activities.

It would not be to the classroom advantage to be very selective in grouping. This type of work will lend itself to the ideas of all the students in the room and selectivity in grouping the children might prove to be more trouble than it would be worth. All the students should be able to express their ideas freely; random grouping will serve this purpose. However, it may be necessary after the initial grouping to regroup because of personality conflicts. Some children, of course, will not want to work with others, although working with all should be promoted as much as possible. In grouping situations such as this, a group of four working together would be best. With groups of this size it is necessary to employ a great deal of working materials. The children will not necessarily have to be working on the same project since each group will be working rather independently.

In conjunction with familiar grocery store advertisements or similar retail store advertisements found in local newspapers, teachers can promote initial thinking and critical analyzing when reading advertisements. It is an opportunity to point out that comparison is important when shopping since prices may not indicate actual value.

The local paper each week will undoubtably be filled, at least on a certain day, with grocery advertisements. These could be clipped for use by different classroom groups. Some of the groups could act as committees for arranging grocery shopping lists that might be used by other committees for doing their shopping. After these lists are made up from the specials in the paper, the other participating groups could use these lists for deciding, using critical comparison, which items they should buy and in what quantity. They may find that some stores offer exactly the same merchandise for a cheaper amount. One very important idea for the children to grasp at this time is that sometimes they can save by buying in large quantities but that they may not actually need the large amount they would have to buy to save money.

Other committees could represent the actual buyers who would have to work with another committee member, perhaps acting as a retail selling force. This could be a very good opportunity to promote understanding of making change, both by the retail selling committee and by the group doing the buying and counting its change. This is a place where the flannelboard with the cutouts for different coins could be used to demonstrate to the entire group or groups exactly how change would be made out. This could be passed around by different people in the group so each could have an opportunity to practice. This of course, would not be the only place in this unit or other units where the flannel board and coin cutouts could be used. It could be employed in any area of buying.

It is very important for children this age to learn to count change. By this age they are doing quite a bit of buying themselves. Committees of children could make up advertisements, similar to those found in local papers, on types of consumer goods that they might wish to buy. By using these student-made advertisements other groups could do their "shopping". Any number of buying situations could be developed by using the different advertisements composed by students. By making their own advertisements, it is also possible that they can gain much better knowledge of how to read advertisements critically, judging misleading statements and misleading inferences as to the value of the product advertised.

Although group work should function well, there should be times for entire classroom participation and instruction. This will give different groups an opportunity to display what they learned in front of the entire class. This will also serve to encourage an interchange of ideas of the different groups.

The different projects on which the groups have been working will be passed around. When one group finishes one project, another group may finish another project. They switch, one taking up buying, the other taking up selling, the other taking up the evaluation of advertisements.

One important thing that should not be overlooked in the study of retail buying is the computation of sales tax. It would perhaps be best to introduce this method of computation to the entire class. As seventh graders these children will have been exposed to computation with decimal fractions. Although they may not remember much about their formal training in this skill, they will perhaps readily see that it is something which they encountered in the past. It will therefore not be so difficult to introduce this form of computation as perhaps some other forms to these students. After the explanation of this skill to the entire group students' knowledge of how to compute sales tax can be put to use in separate groups after they divide up and begin their business of buying and selling in the retail market. It might be best to wait to introduce sales tax computation until they are well past the idea of buying and selling. Then the teacher may return to the beginning and explain that sales tax must always be added on to any retail purchase and explain how to take the correct percentage of the cost of the products.

Once students become familiar with the computation , the teacher might then introduce sales tax computation sheets (available from some retail store owners.) These are the cards that list the sales tax for every retail price up to about $50.00. The students use these cards instead of computing each time when making out a bill for a customer.

The retail mail order house catalogues that were mentioned in the section on "materials" may be employed at any time by different groups for making up orders, learning how to make out order blanks, and describing exactly the articles desired.

At any place where additional materials are needed, the teacher may use supplementary teacher-made materials to help convey a point. Such supplementary materials may include menus, advertisements, grocery lists, or any list of retail buying goodsthat will help the children to further their skill in thinking about a purchase and actually computing the purchase.

This is a good opportunity to introduce the personal budget. Although seventh grade children are not ready for computation of family budgets yet, it might be wise to help them to organize their spending. Although there is a great deal of difference as to the amount each child in the class will actually have to spend per week, the groups can perhaps work out a budget that would be comparable to one used by the average teenager in the classes. Studying this can also lend itself to use as supplementary work in retail purchasing.

As mentioned earlier, the previous suggestions are not meant to be complete. They may be added to or deleted from, in order to present a workable unit to a class. Perhaps the key word to success in presenting a unit of this type is "action". The students for whom these units are prepared are the type of children who can only enjoy and learn when they participate freely and completely.

Evaluation of progress of this unit would be made almost entirely by teacher observation of the quality of work done by each of the participating pupils. Evaluations also should be made of the quality of work done by the committees and groups together, as group work is important when doing units of this type. Group work also does much to further understanding of students in the classrooms.

Eighth Grade Arithmetic

Objectives:

1. To reinforce and re-teach where necessary the basic skills of addition, subtraction, multiplication, and division (fractions included where advisable).

CONTENT	ACTIVITIES
I. Review of fundamentals A. Addition	Begin review unit on a class discussion of importance of being able to add accurately in a game such as bowling. Discuss growing popularity of this sport and how teams are selected and length of season. Prepare mimeographed sheets explaining bowling and a few examples of simple scorekeeping. After the explanation, teams can be selected in the classroom and hold "make believe" bowling games. The games are played with no

CONTENT	ACTIVITIES
	spares--until students understand the simpler socrekeeping.
	Next, they move to a few spares in a game, then on to strikes.
B. Division	A mock tournament can be held in class, totaling the scores and determining averages.
C. Subtraction	Individual scores can be kept to determine the highest scores and the lowest. Find out the difference in the scores. More mimeographed sheets can be given to the "team" for further drill.
	After all phases of scoring are practiced, a field trip to a bowling alley can be made where the entire class bowls a game. These scores can be taken back to the classroom, totaled, averaged, and placed in order of highest scores, etc.

CONTENT	ACTIVITIES
D. Multiplication	A catalogue unit is also used in review. To include the fundamentals, students can select articles to be ordered, prices totaled, weight of objects determined and shipping rates included.
D. Making change	Sales tax is included and the total cost of the items is deducted from a certain amount of money that each student was given at the beginning. He then reports the amount of money he has left to order additional items.
II. Fractions	Use flannelboard extensively.
A. Addition	Discuss fractions and how they play an important part in our daily living.
B. Subtraction	
C. Multiplication	Have much practice and drill using the prepared material mentioned earlier.

D. Division	Recipes can be used to explain common fractions. Use decimal fractions to work problems in dollars and cents using newspapers, magazines, etc.
III. Decimals	Shopping units can be prepared, population studies examined, and drill on decimals held, using place values.
IV. Measurement A. Linear	Discuss the nature and history of measurement and how ancient people probably measured before any system was devised.
B. Liquid	Show how measurement is necessary and what would happen if no system were available.
C. Volume	Working with rulers in the classroom, measure objects in the room, heights of other students.

CONTENT	ACTIVITIES
	Using liquid measurement, pose problems as to how much milk is used in the school cafeteria if each student drinks 1/2 pint daily, etc.
V. Geometric shapes and designs A. Lines 1. Parallel 2. Horizontal 3. Vertical B. Angles	Point out the various shapes and designs in a classroom, etc. Using flannelboard, show different designs, with lines, angles, circles, triangles.
1. Acute 2. Right 3. Obtuse	Study geometric designs of flowers or snowflakes.
4. Straight C. Circles 1. Radius 2. Diameter 3. Circumference	Design pattern for a fabric or floor covering; find magazine to illustrate use of geometric designs.

Ninth Grade Arithmetic

Objectives:

1. To begin to develop an understanding of the relationship between the student and the world of work and the everyday use of math.
2. To develop an understanding of measurement concepts.
3. To develop an understanding of graphs, charts, maps, and tables, and their use in mathematics.
4. To develop an understanding of special relationships.
5. To continue to develop a meaningful vocabulary in arithmetic.
6. To begin to develop and understand basic money concepts to meet his present needs and his future adult needs.

Outline of Content: Ninth Grade

Writing fractional numerals for wholes

Writing fractional numerals for groups

Comparative size of common fractions with equal numerators

Comparative size of common fractions with equal denominators

Adding, subtracting, multiplying, and dividing common fractions

Common denominators

Mixed numerals

Meaning of decimal fraction

Adding, subtracting, multiplying, and dividing decimal fractions

Meaning of percents

Budgeting in relation to percents

Percents and discounts and net price

Interest concepts

Installment buying concepts

CONTENT	ACTIVITIES
I. Operation of small school business	Have class group discussion regarding need for a school store.
A. Developing awareness of need for this type of business	
B. Understanding necessity for cooperation of various school departments to approve this business.	Do some type of survey among teachers and faculty to determine what items are most needed. Get an approval from administration and others involved. Let students present and do as much of this as possible.
C. Understanding change-making concepts	Using store and clerks, set up roll playing activities to teach making change. Do this with real goods and money, after having practiced with play money and various practice work sheets.

CONTENT	ACTIVITIES
D. Understanding reasons for, and use of record systems for store.	Develop and keep set of books on all aspects of store operation.
E. Understanding responsibilities necessary to work in store or to keep record systems	Have group discussions about work attitudes and responsibilities.
F. Developing an awareness of service owner provides for school.	Have group discussions on what service store provides for school.
II. Review of basics A. Number system B. Addition C. Subtraction D. Multiplication E. Division F. Common fractions G. Decimals H. Percentages	Play games such as math baseball and math bingo. Take speed test. Use practice sheets on each of the basics. Use flannelboard extensively. Use gas pump model for fractions. Use store data for per cent problems, such as mark up, discount, etc. Use visual aids, such as overhead projector.

CONTENT	ACTIVITIES
III. Measurement A. Concepts of time 1. In relation to work 2. In relation to leisure time 3. In relation to programs and responsibilities 4. Computing time between dates 5. Adding, subtracting time in minutes, hours, days, weeks, months, and years 6. Knowing names of months and days of week	Use mark clocks for practice in telling time. Develop concepts of a.m. and p.m. Use work sheets on adding, subtracting, multiplying and dividing time. Have class figure time sheets and payroll for school store. Drill on days of weeks and months of year. Have someone mark off days on calendar. (This is done each day.) Have exercises to develop concepts of time and employment.
B. Understanding and using thermometers 1. Clinical 2. Weather 3. Cooking	Bring in samples of various kinds of thermometers. Keep a daily chart of outside temperatures.

CONTENT	ACTIVITIES
C. Understanding and using linear measurement	Measure various items around rooms.
1. Ruler and its parts	Use measurement in making charts and graphs.
2. Yardstick and its parts	
3. Miles and miles per hour	Develop speed concepts.
4. Things drawn to scale	
D. Understanding and using liquid measurement concepts	Use milk cartons of all sizes and develop concepts of liquid measure.
1. Fluid ounces	
2. Half pints, pints, quarts, gallons, etc.	
D. Understanding and using quantity and weight concepts	Use work sheets on quantity and weight concepts.
1. Dozen, bushel, peck	Work closely with Curriculum Demonstration Program industrial arts department.
2. Ounce, pound, ton	
IV. Graphs, charts, maps, and tables	Use sample of graphs to define them, one or two for each type of graph.
A. Understanding graphs and charts	
B. Understanding purposes of graphs and charts	Use sample to develop concepts on how to read graphs and get hidden information from them.

CONTENT	ACTIVITIES
C. Understanding different kinds of graphs and charts	Use overhead to begin instruction on how to make graphs.
D. Understanding how to get information from graphs and charts which is not directly stated (ratio and rates for example)	Use partially completed graphs to begin letting students make their own graphs.
E. Understanding how to get information from graphs and charts	Get data for graphs from school store. (Supply of data is endless.)
F. Understanding and using various tables, such as bus and train timetables, tax tables (income and sales), payroll schedules.	Use train, bus, and plane schedules to develop concepts on how to read tables.
G. Understanding and using road maps	Study road maps and city maps.
V. Special relationships	Use objects in room to compute square area.
A. Understanding and using square measurement concepts	Relate to buying paint or lumber which would require so much for so much area.

CONTENT	ACTIVITIES
C. Understanding different kinds of graphs and charts	Use overhead to begin instruction on how to make graphs.
D. Understanding how to get information from graphs and charts which is not directly stated (ratio and rates for example)	Use partially completed graphs to begin letting students make their own graphs.
E. Understanding how to get information from graphs and charts	Get data for graphs from school store. (Supply of data is endless.)
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G. Understanding and using road maps	Study road maps and city maps.
V. Special relationships	Use objects in room to compute square area.
A. Understanding and using square measurement concepts	Relate to buying paint or lumber which would require so much for so much area.

CONTENT	ACTIVITIES
B. Understanding and using comparative lengths, weights, and speeds	Take advantage of space news to develop concepts of time and speed in space compared with time and speed on earth.
1. Develop concept of time, distance, and speed in space	
2. Develop concept of time, distance, and speed on earth	
C. Understanding and using common geometric shapes	Point out common forms such as circles, triangles, squares, found in common building techniques.
VI. Basic money spending	
A. Understanding and using personal budget for allowance or spending money	Use as a basic text the Turner-Livingston, The Money You Spend.
B. Understanding what to expect from a part-time job in relation to wages, hours, and spendable income	Have students keep a record of personal spending, day by day.
C. Developing awareness of consumer educational concepts	Have students make own budget for day, week, or even month.

CONTENT	ACTIVITIES
D. Developing concepts about possible use of banks and banking	
E. Developing concepts about credit buying--advantages and disadvantages	Discuss in groups various money and spending concepts, such as credit, installments, sales, deceptive advertising and selling, and others.
F. Understanding and using a personal record-keeping system of some type	

Eleventh Grade Arithmetic

Objectives:

1. To review the fundamentals
2. To provide the student with a practical background of working with numbers.
3. To provide the student with a background for the problems in the society he encounters daily.
4. To provide further learning in business mathematics.

CONTENT	ACTIVITIES
I. Review	Practice problems in all fundamentals. Have small groups work on mental
A. Addition	
B. Subtraction	

CONTENT

C. Multiplication
D. Division

II. Common fractions
A. Addition of fractions
B. Subtraction of fractions
C. Multiplication of fractions
D. Division of fractions
E. Estimating fractions

III. Decimals as fractions
A. Addition
B. Subtraction
C. Multiplication
D. Division
E. Working with a ruler

IV. Word problems
A. Meanings of words
B. Reconstructing problems
C. Estimating answers

ACTIVITIES

problems--contests on multiplication tables, etc.

Practice with flash cards.

Use playing cards with correct number of spots for examples.

Use flannelboards, coins and cards to show fractions.

Use recipes to show fractions.

Use model gas pumps similar to ones in service stations.

Give practical problems with ruler to show decimals and fractions.

In small groups, have class make up own word problems and solve.

CONTENT	ACTIVITIES
D. How to organize a problem	
V. Measurement A. Reviewing and working with a ruler B. Areas C. Volumes D. Weights E. Liquid measure	Have group work on plans for desks, small buildings, etc. to be used in conjunction with woodworking and other industrial arts classes. Have room lay-outs for girls in home economics classes. Work with scales to become better acquainted with weights. Measure the people in the classroom, width of wall maps, doors, etc.
VI. Percentages A. Percentages in decimal forms B. Percentages in proportions C. Percentages in comparisons	Work out problems using absences in the classroom, number of students who work, etc.
VII. Mathematics for daily use A. Sales tax B. Luxury tax C. Making out bills	As customers, all of the students can do mental problems computing sales tax on items they buy. As clerks they must learn to

CONTENT	ACTIVITIES
D. Learning more about deposit slips E. Checking accounts F. Overtime pay G. Installment buying	compute quickly and accurately sales and luxury taxes. Many students have allowances or work for their money. Class can practice making out deposit slips. Have role playing for deposit slips and checking accounts. Students can be credited with a bank account and keep track of all money spent during day, week or month. Devise budgets and keep personal accounts. Keep payroll sheets on school store. Figure over-time pay. Show discounts by paying bills when due. Discuss installment buying on TV set. Show down payments, monthly payments and interest to be charged.

CONTENT	ACTIVITIES
VIII. Spending money wisely A. All about budgets B. Personal accounts C. Time payments D. Depreciation E. Discounts F. Buying cars G. Repossessions H. Borrowing	Make and keep personal budgets. Make time budgets as to hours spent on study, sleep, school, etc. Make time payment plans from newspaper advertisements to show actual cost. Figure rate of interest. Use furniture advertisements, auto ads.
IX. Insurance A. Fire insurance B. Health and accident C. Automobile insurance	Discuss importance of insurance and the services insurance companies offer. Examine model policies. Groups can make up insurance policies on school athletes, damages, parcels sent through mail, loss of property by theft, and other items.

CONTENT	ACTIVITIES
	Make up auto policies to show they are really several policies in one (liability, collision, medical, etc.)
X. Taxes A. Property taxes B. Federal income taxes	Class can write up reports on what tax money buys for them and how they benefit from taxes. Show differences between local taxes and state taxes and what they buy. Problems can be made up on property taxes and amount of tax can be computed. Federal income tax form can be obtained and worked out using some of the students' salaries. Compute refunds using short forms.